

Fig 1A (ICP27 plasmid)

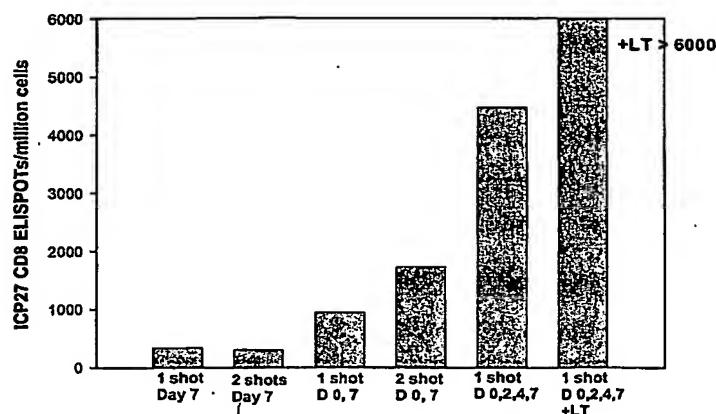
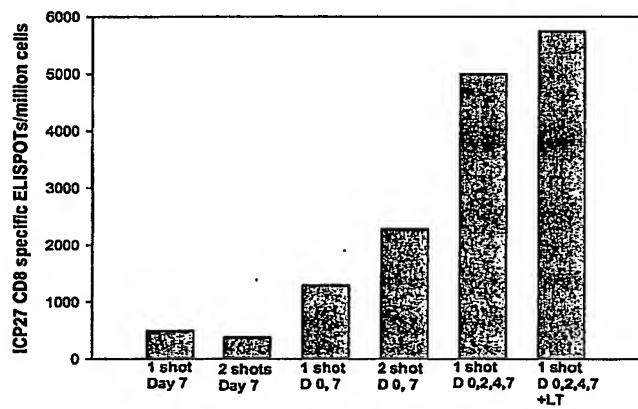


Fig 1B (PJV7630)



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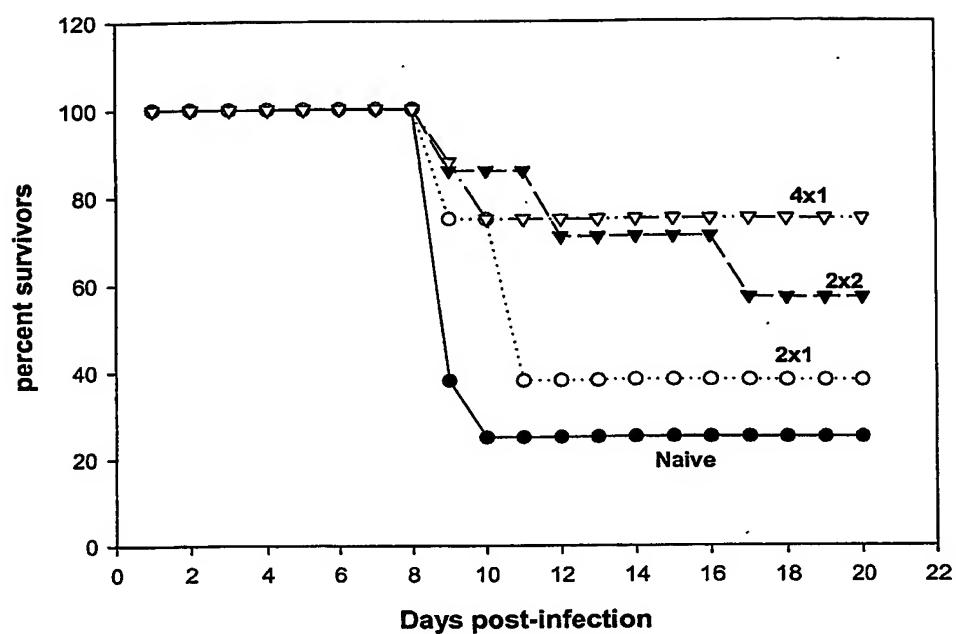
Fig 2A

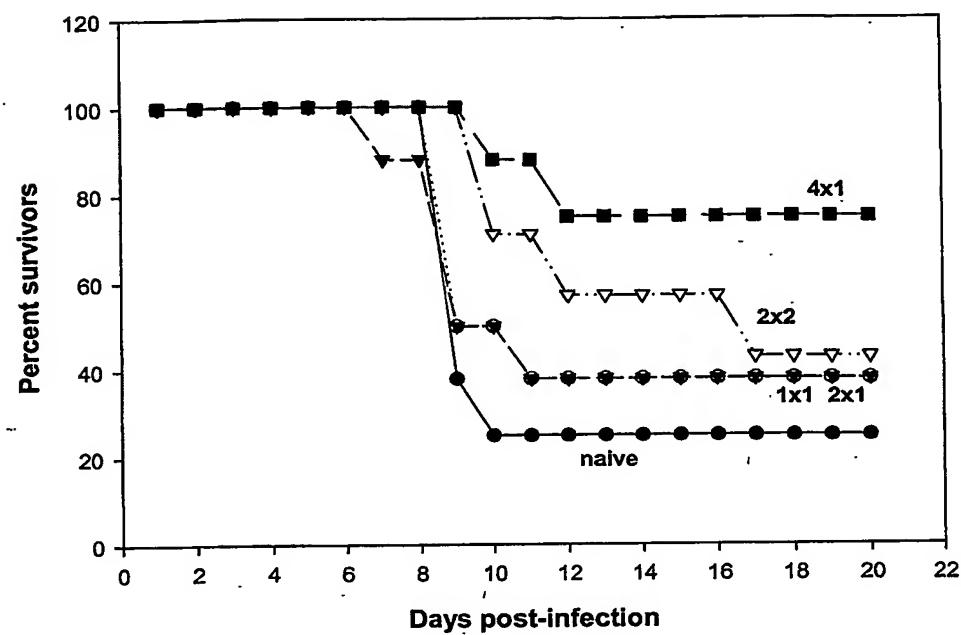
Fig 2B.

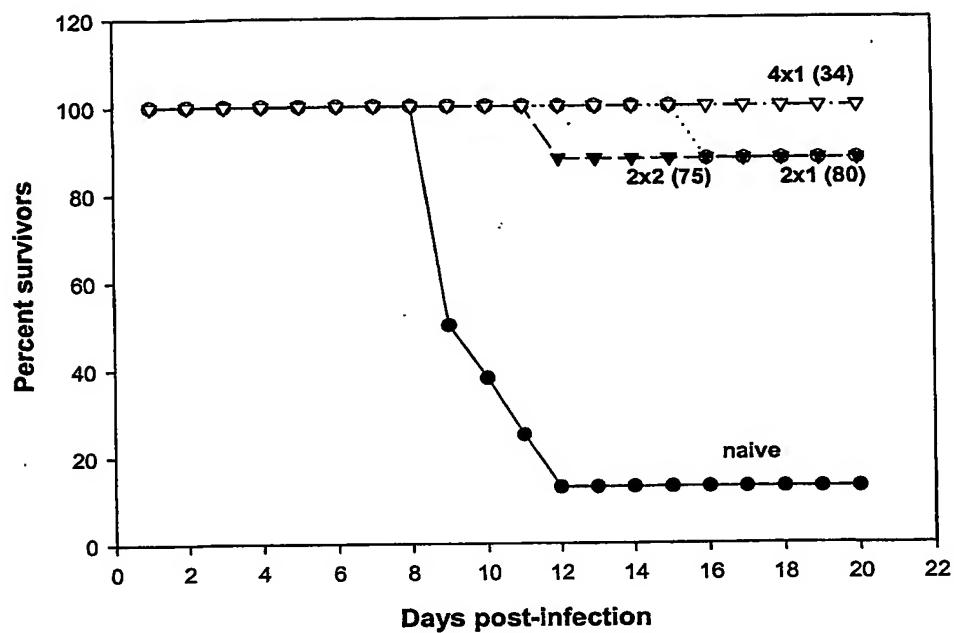
Fig 2C

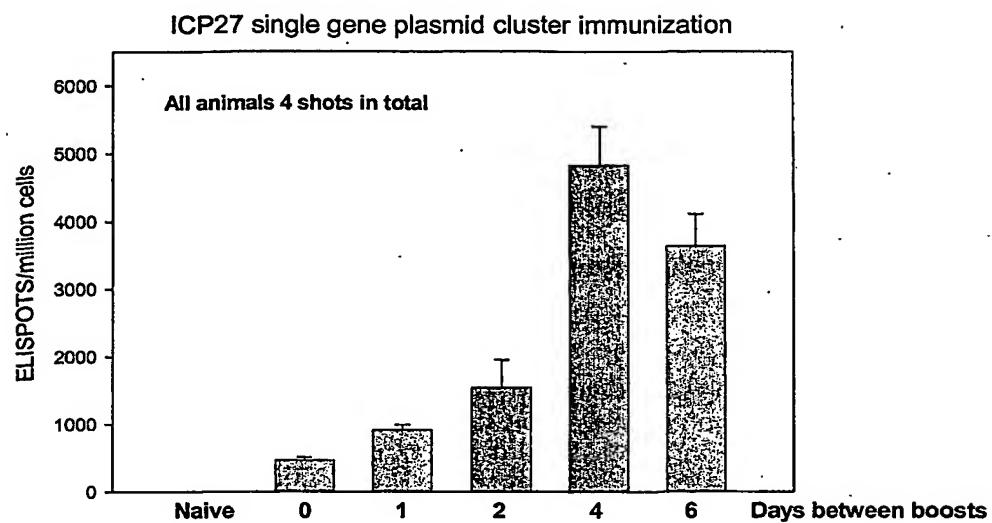
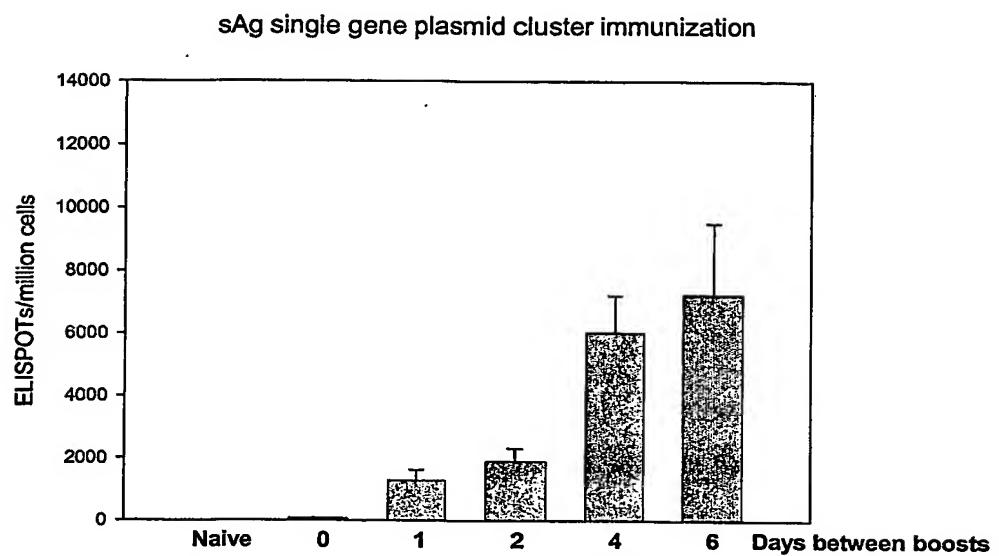
Figure 3A**BEST AVAILABLE COPY**

Figure 3B



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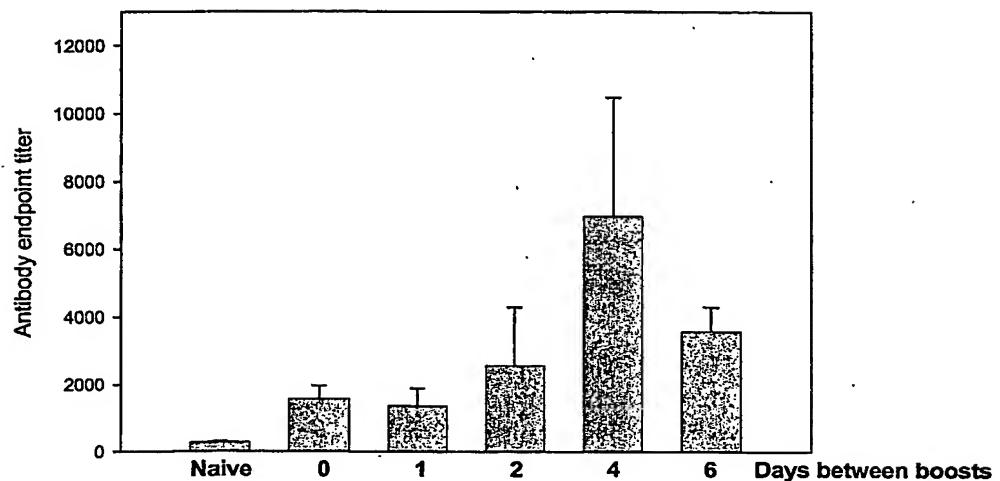
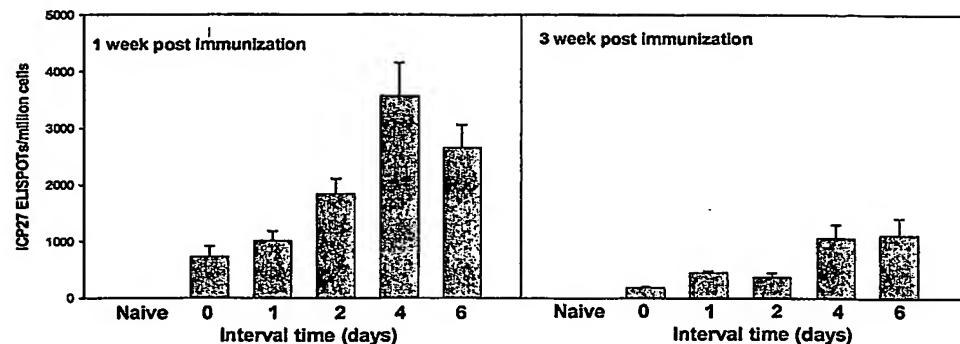
Figure 3C**Antibody Titer for sAg cluster****BEST AVAILABLE COPY**

Figure 4A

Figure 4B



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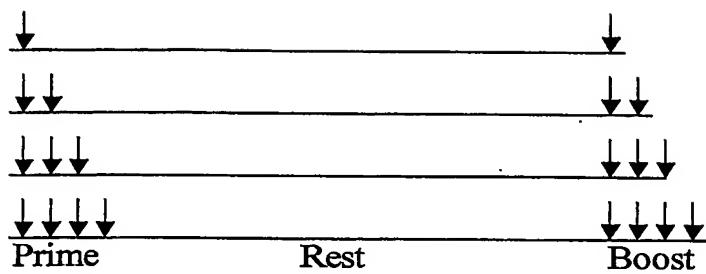
Figure 5A

Figure 5B

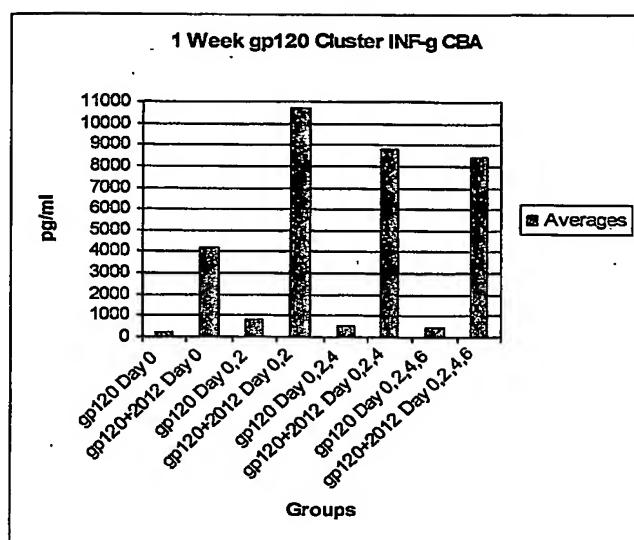


Figure 5C

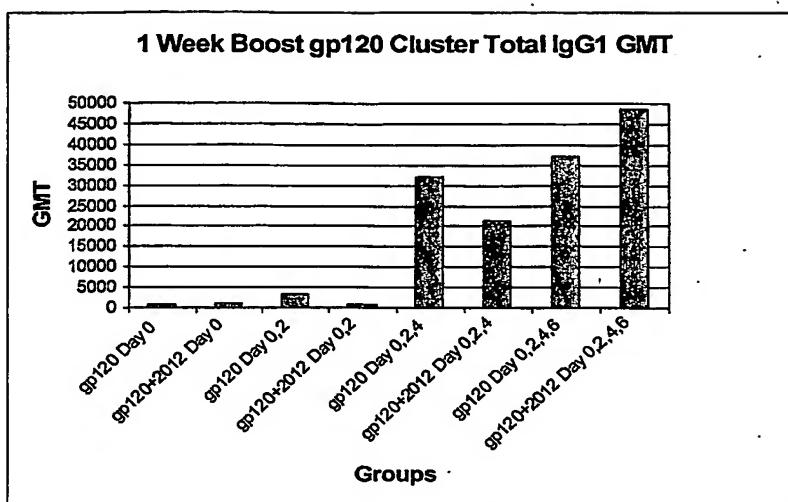
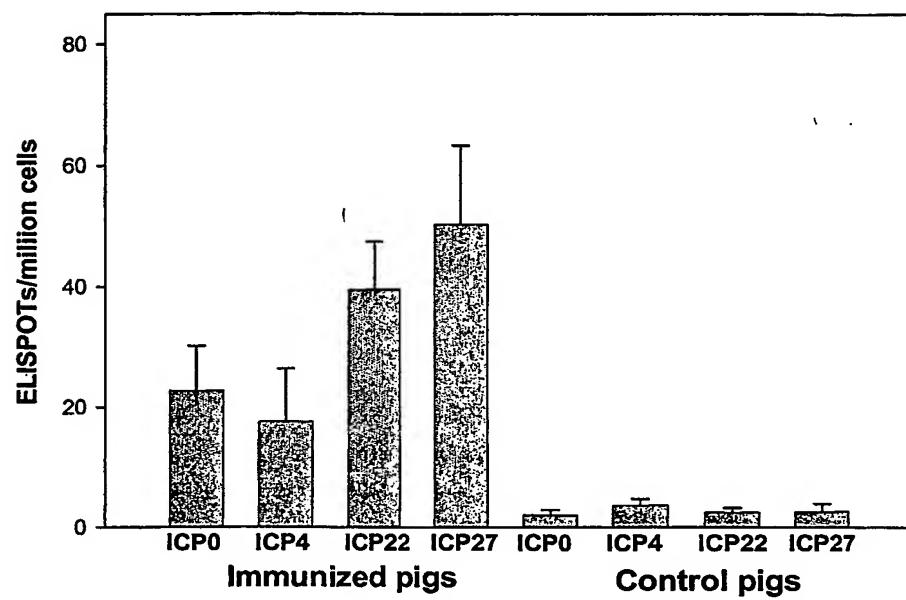
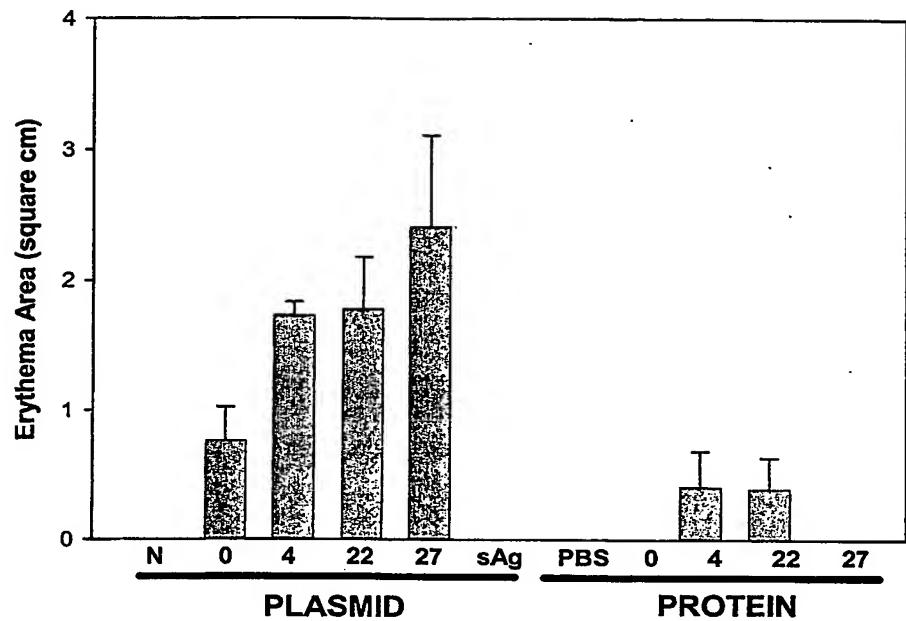


Figure 6A



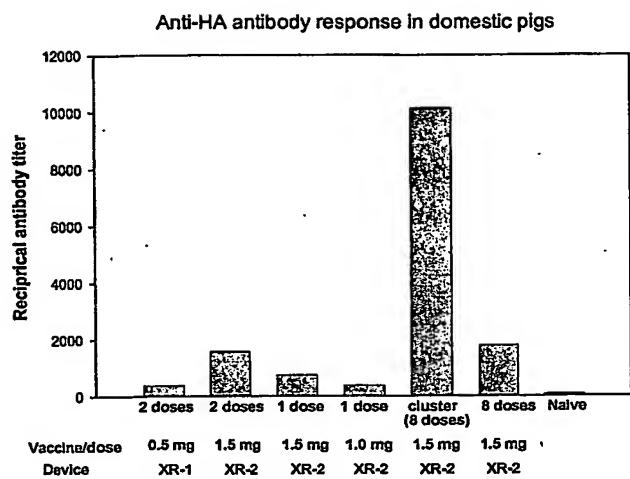
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Figure 6B



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Figure 7



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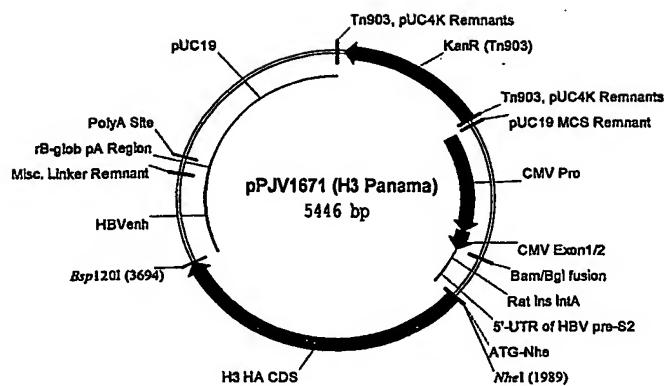
Figure 8

Figure 9

H3 Panama HA Natural Sequence (I) 1 10 20 30 40 50 65
(I) —MKTIIIALSYILCLVFAQKLPGNDNSTATLCLGHHAWSNGTLVKTITNDQIEVTNATELVQSSS
H3 Panama HA Encoded by pJM1671 (I) MASKTIIIALSYILCLVFAQKLEPGNDNSTATLCLGHHAWSNGTLVKTITNDQIEVTNATELVQSSS
Consensus (I) KTIIIALSYILCLVFAQKLPGNDNSTATLCLGHHAWSNGTLVKTITNDQIEVTNATELVQSSS

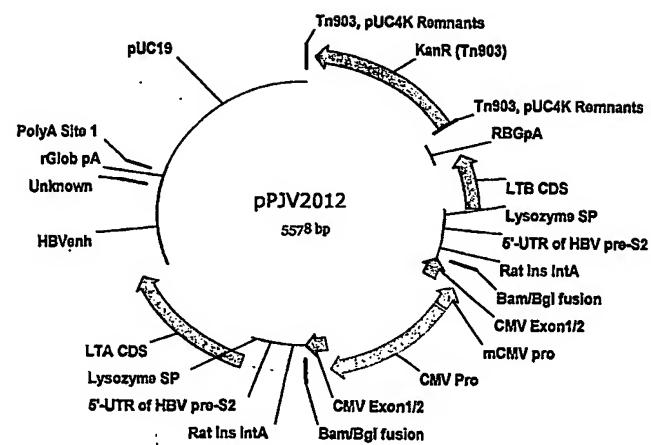
Figure 10

Figure 11

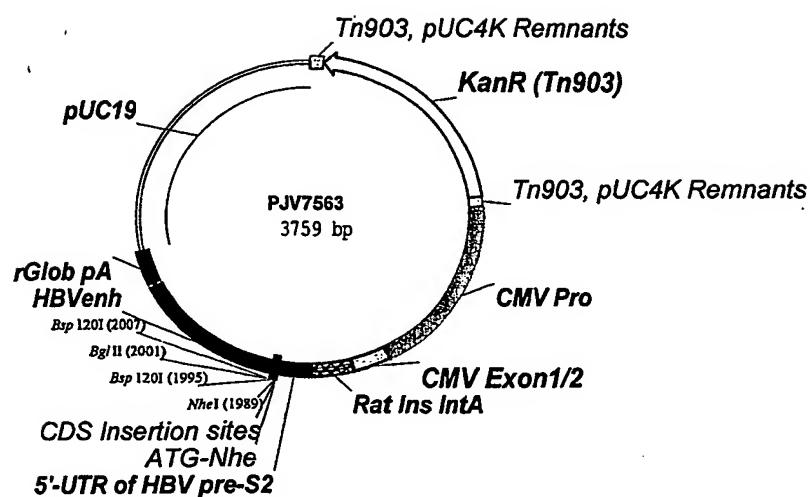


Figure 12

Figure 13
Flowchart Derivitization of Plasmids PJV7563

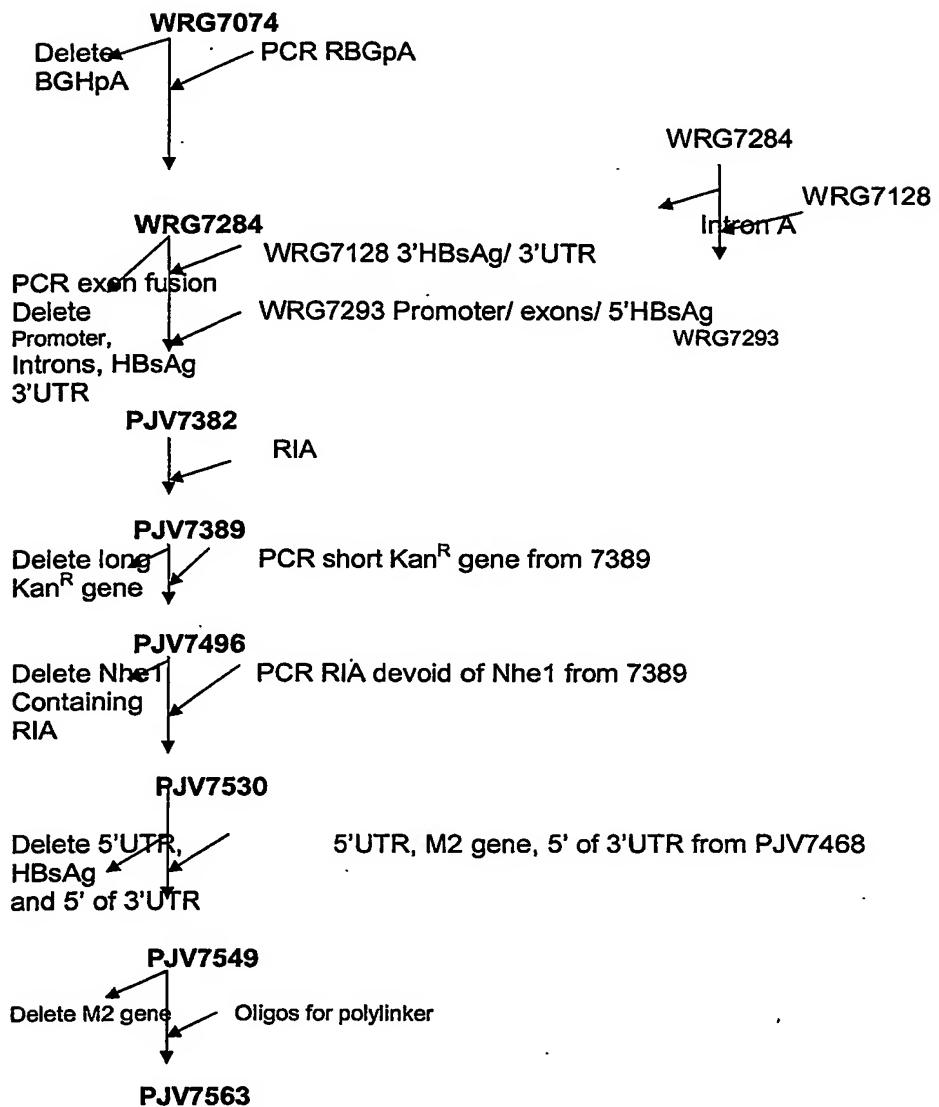
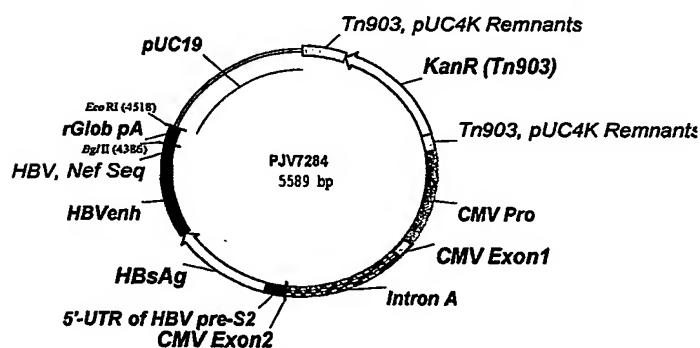
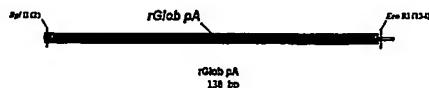
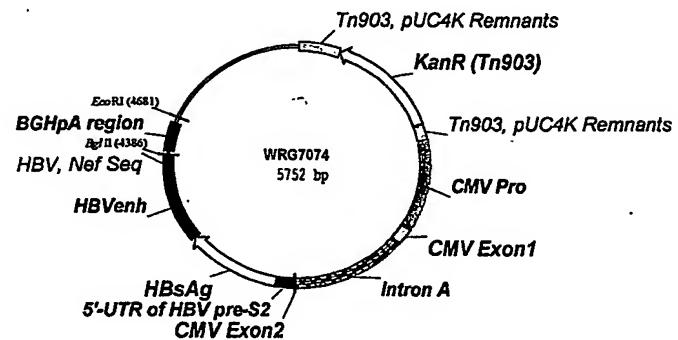
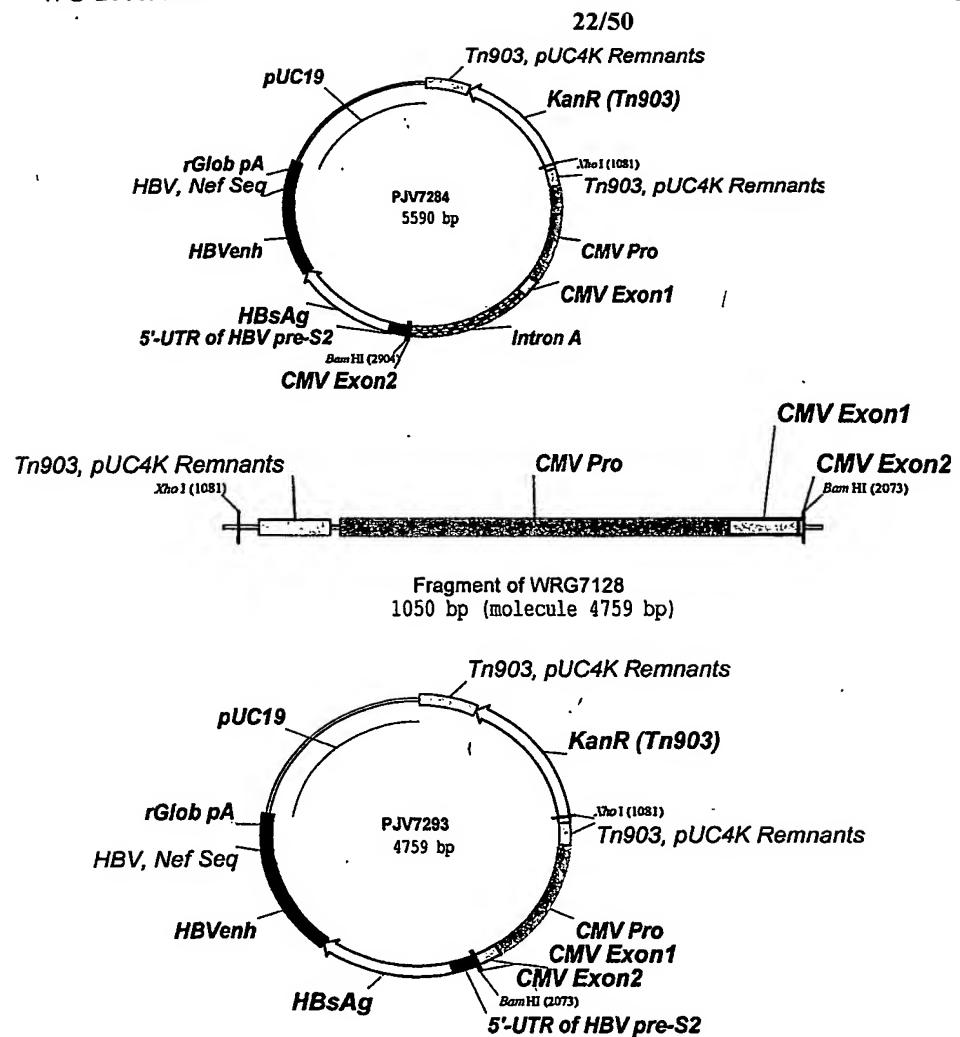


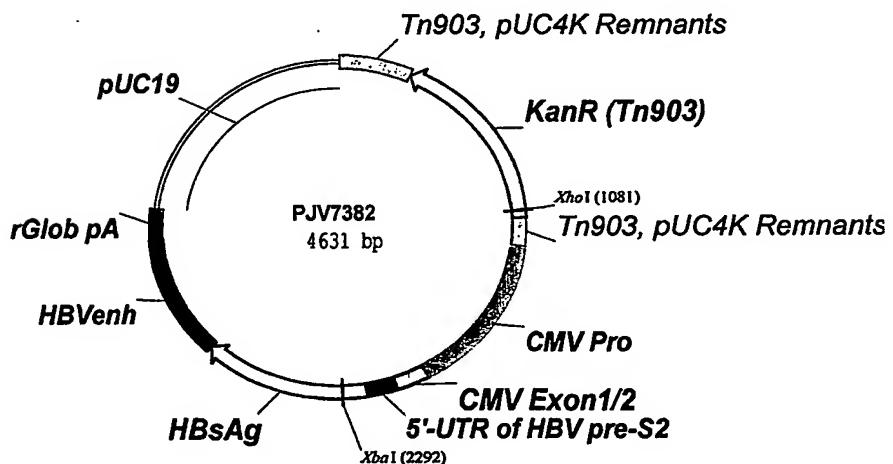
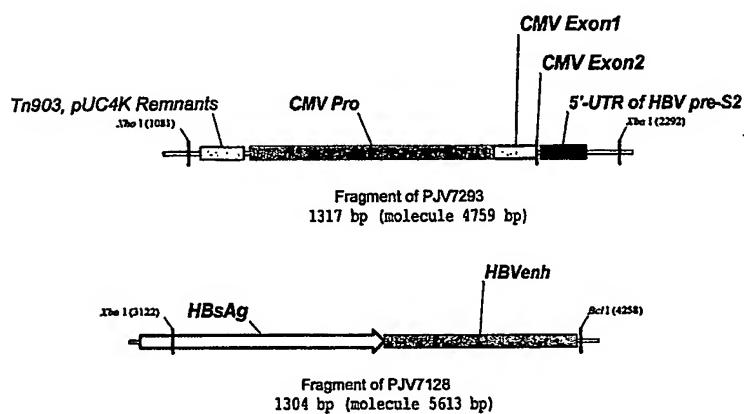
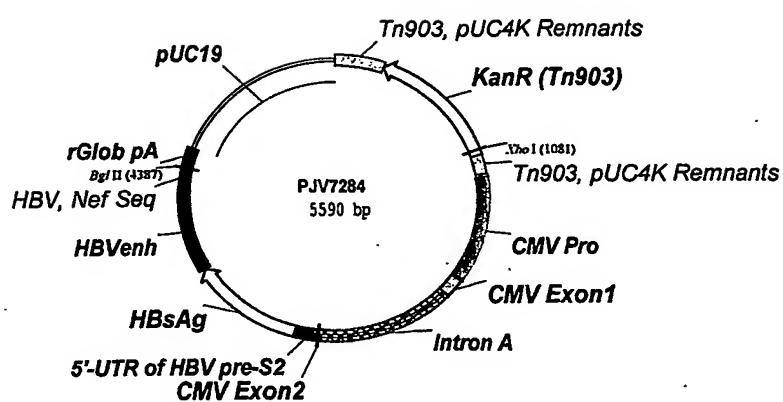
Figure 14 (i) – (viii)

Feature Maps of Key Plasmids in Construction of pPJV7563

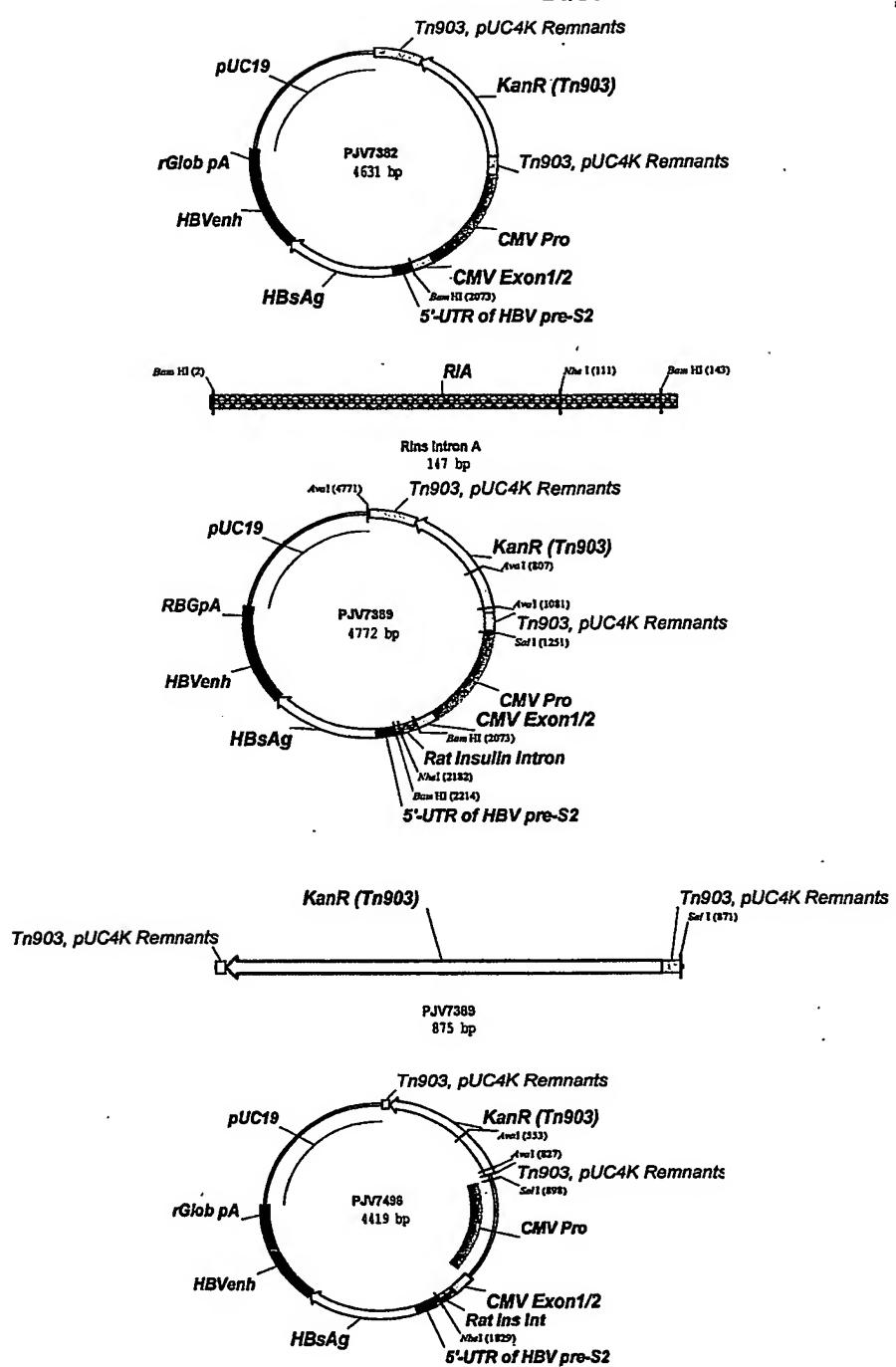


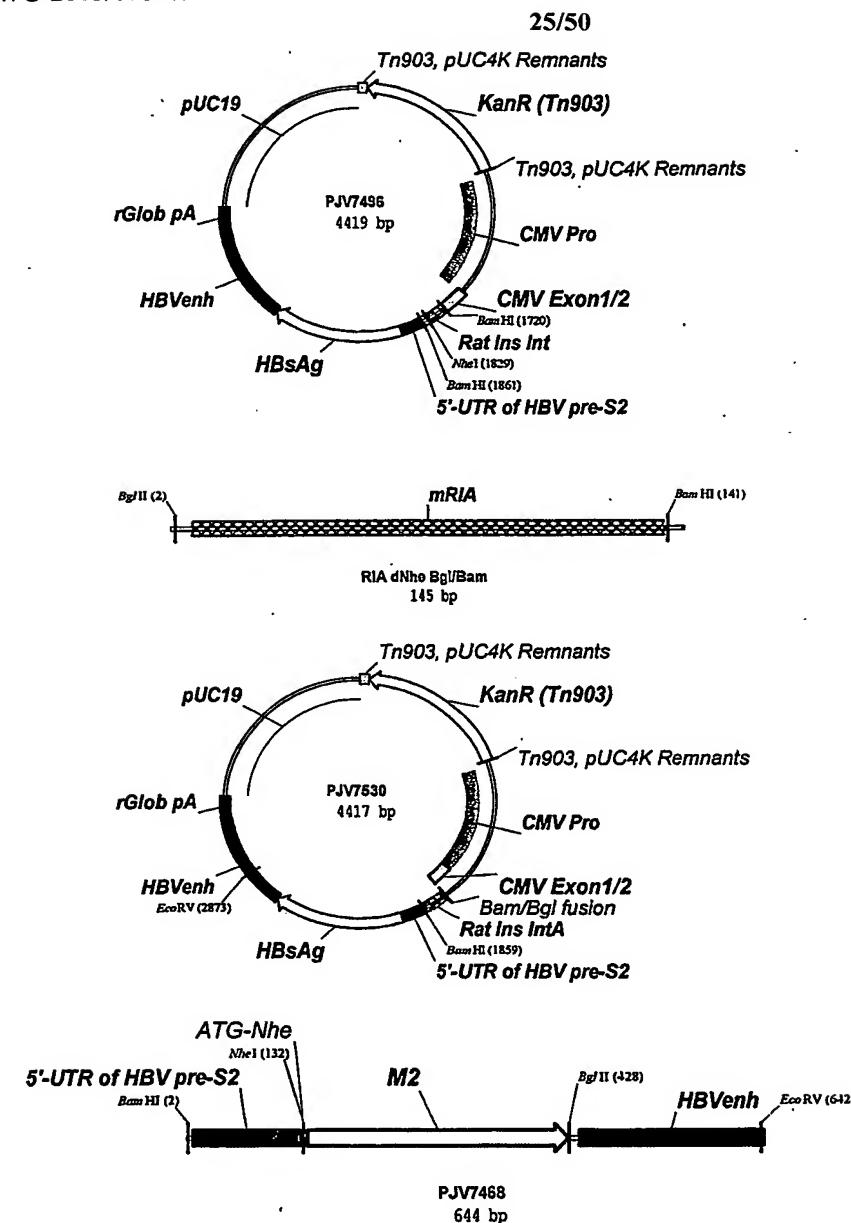


23/50



24/50





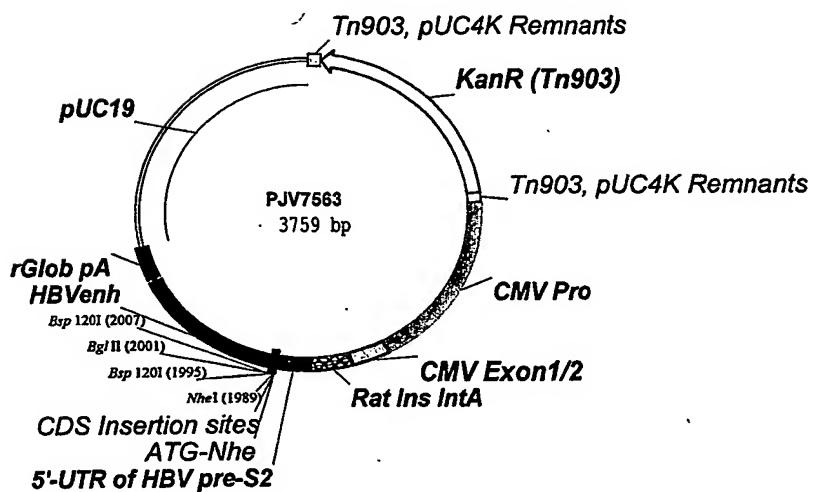
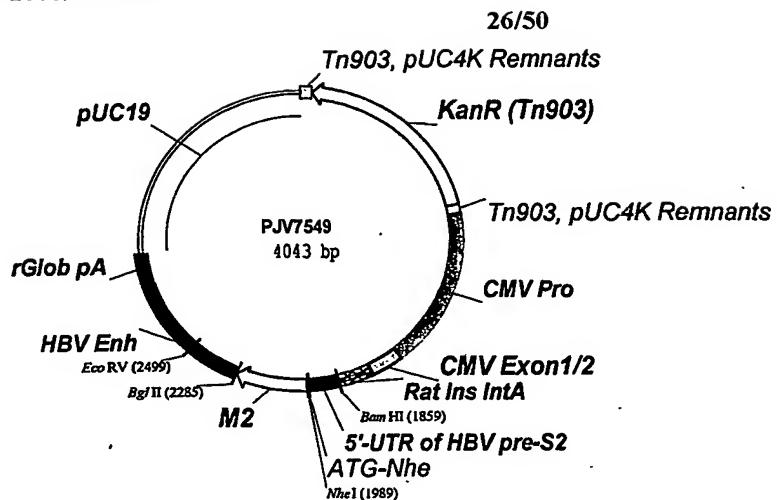


Figure 15
Flowchart Derivation of Plasmids WRG7074 and WRG7128

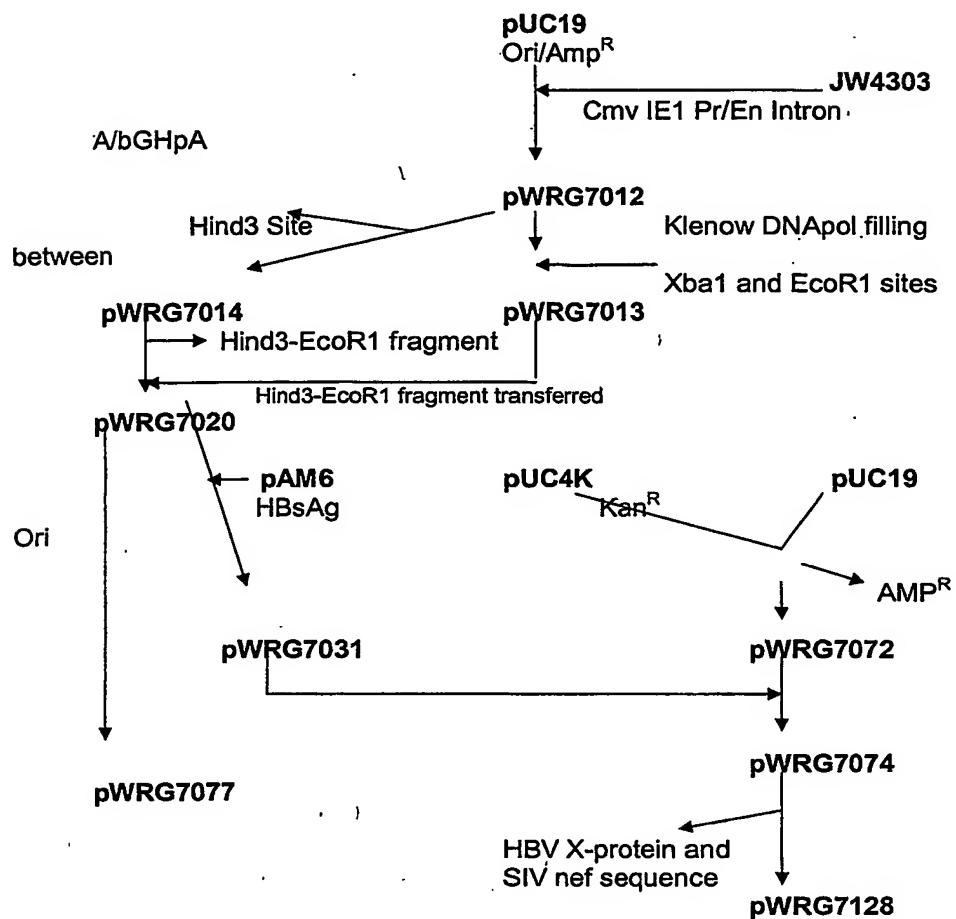
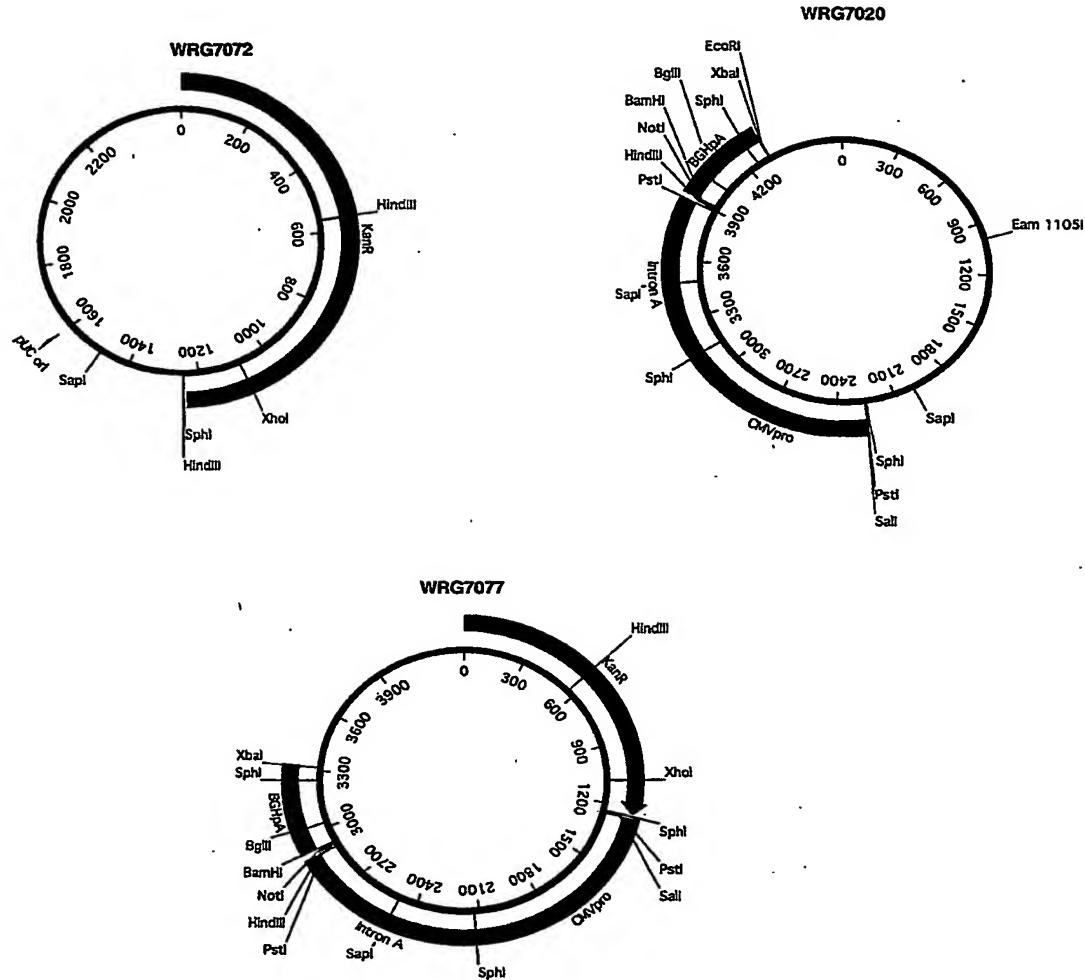
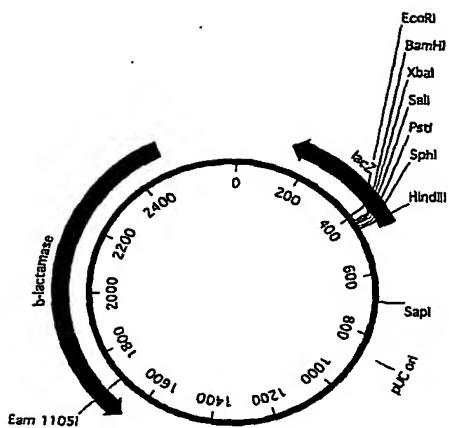


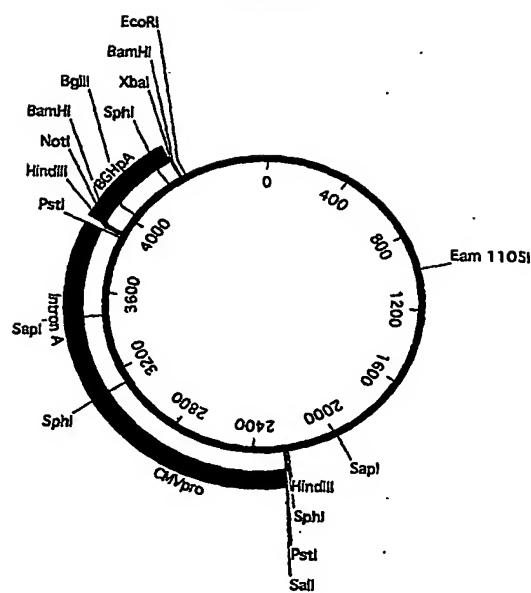
Figure 16 (i) to (v): Key Plasmid Features



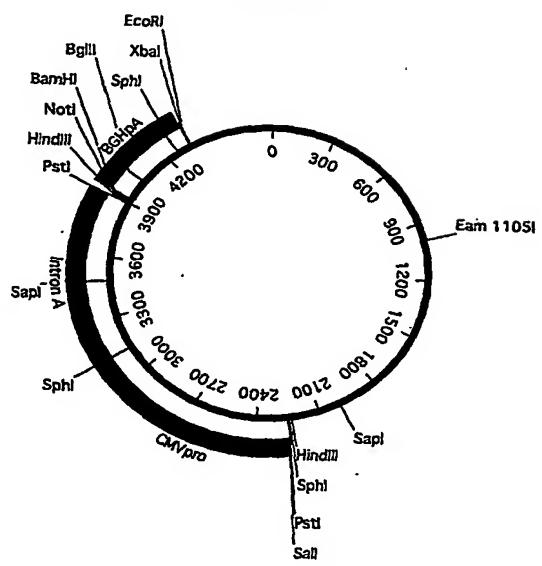
pUC 19



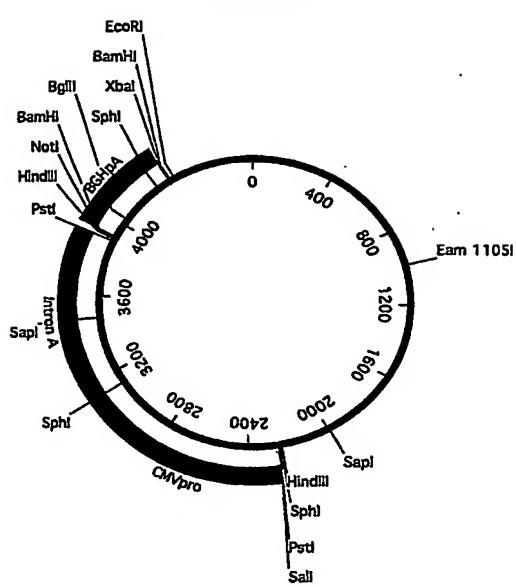
WRG7012



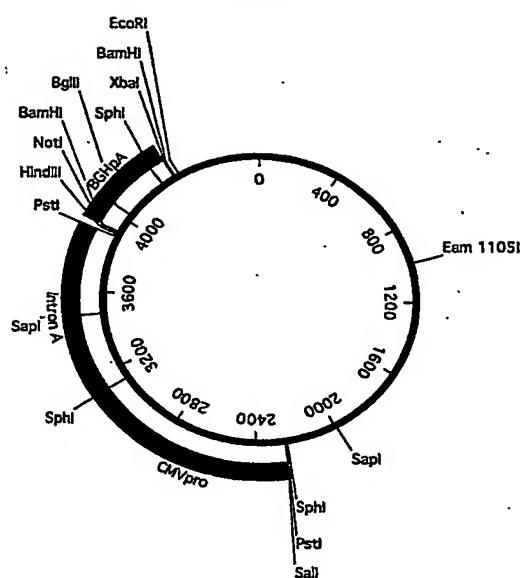
WRG7013

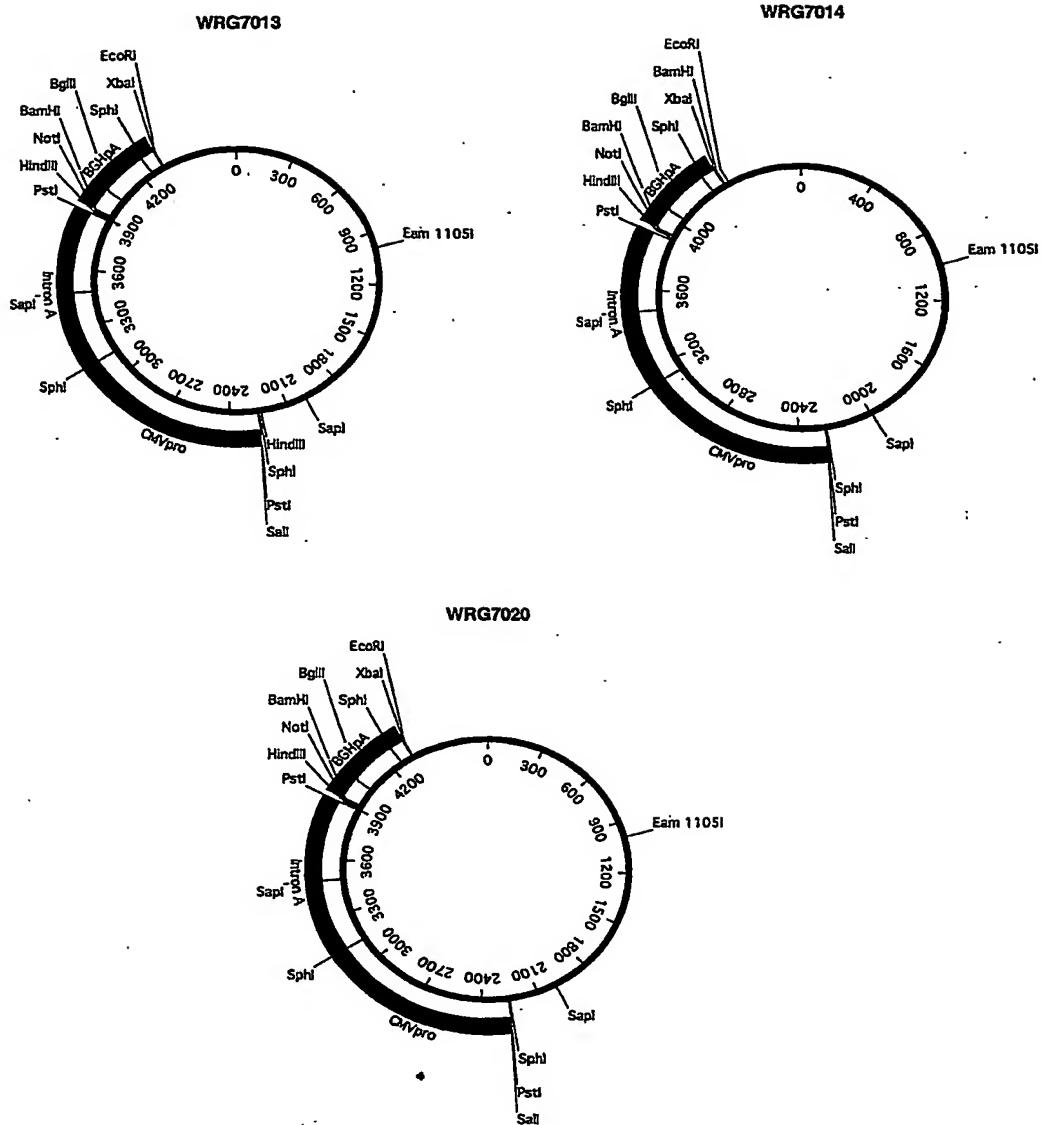


WRG7012

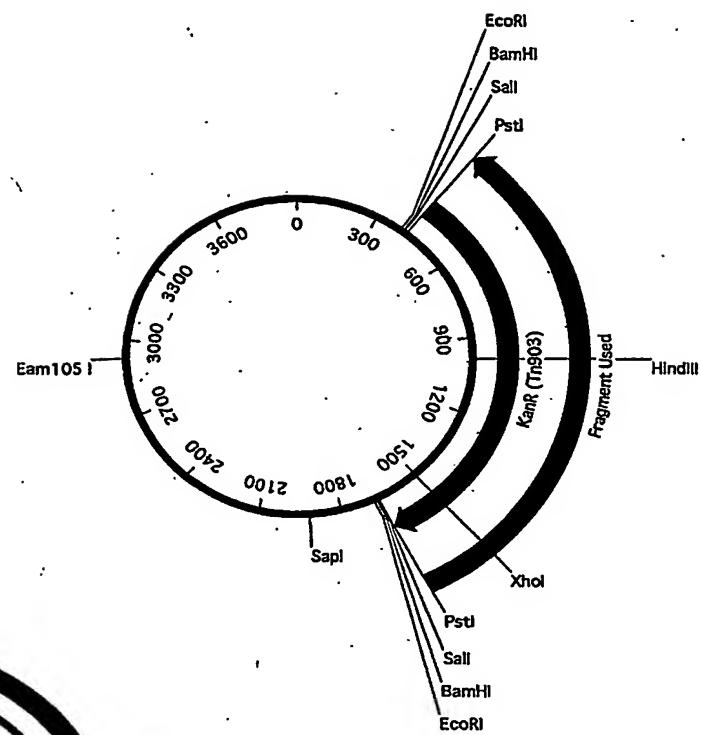


WRG7014





pUC4K



WRG7072

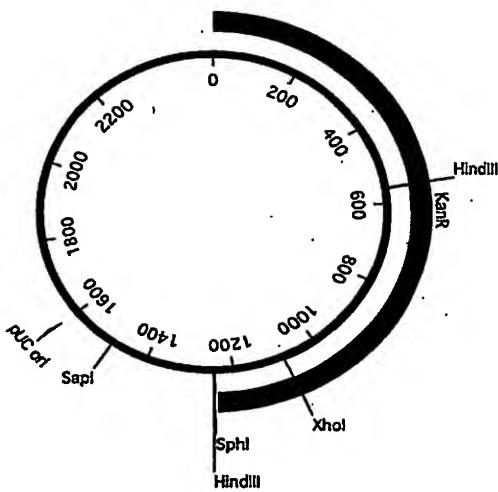


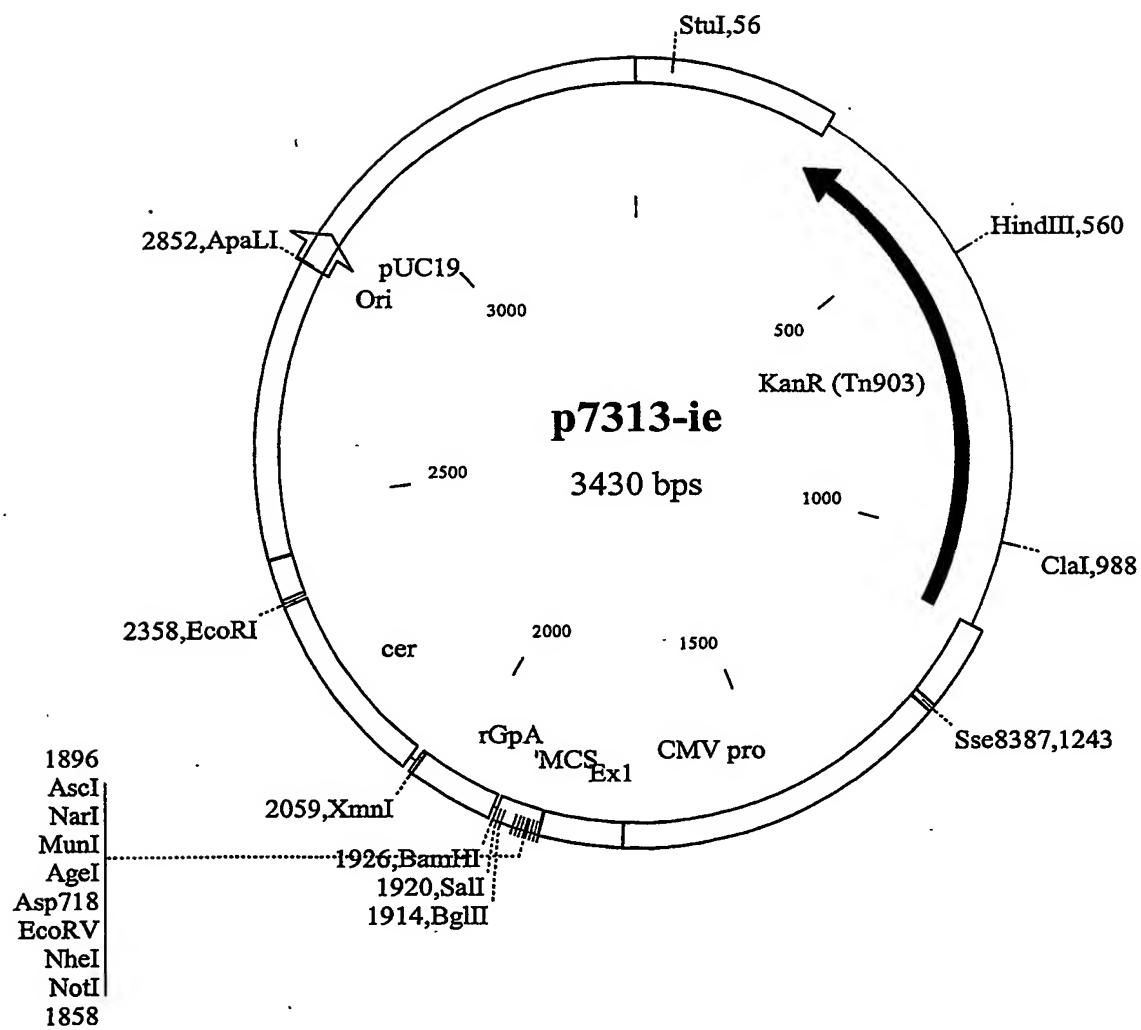
Figure 17

Figure 18

Sequence of p55 gag insert in pGagOptprpr2

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AACGGTTGCCGTGAACCCAGGCCTGCTGGAAACATCTGAGGGATGTCGCCAGATCCTGGGG
CAATTGCAGCCATCCCTCCAGACCGGGAGTGAAGAGCTGAGGTCTTGTATAACACAGTGGC

10

TACCCCTACTGCGTACACCAGAGGATCGAGATTAAGGATACCAAGGAGGCCTGGACAAAAA
TTGAGGAGGAGCAAAACAAGAGCAAGAAGAAGGCCAGCAGGCAGCTGCTGACACTGGGCAT
AGCAACCAGGTATCACAGAACTATCCTATTGTCCAAAACATTCAAGGCCAGATGGTCATCA
GGCCATCAGCCCCCGGACGCTCAATGCCTGGGTGAAGGTTGTCGAAGAGAAGGCCTTCTC
CTGAGGTTATCCCCATGTTCTCGCTTGAGTGAGGGGGCCACTCCTCAGGACCTCAATACA

15

ATGCTTAATACCGTGGCGGCCATCAGGCCGCATGCAAATGTTGAAGGAGACTATCAACGA
GGAGGCAGCCGAGTGGGACAGAGTGCATCCCGTCCACGCTGGCCAATCGCGCCCGACAGA
TGGGGAGCCTCGCGCTCTGACATTGCCGGCACACCTCTACACTGCAAGAGCAAATCGGA
TGGATGACCAACAATCCTCCCATCCAGTTGGAGAAATCTATAAACGGTGGATCATTCTCGG
TCTCAATAAAATTGTTAGAATGTAATCTCCGACATCCATCCTGACATTAGACAGGGACCCA

20

AAGAGCCTTTAGGGATTACGTGACCGGTTTATAAGACCCCTGCGAGCAGAGCAGGCCTCT
CAGGAGGTCAAAACTGGATGACGGAGACACTCCTGGTACAGAACGCTAACCCGACTGCAA
AACAACTTGAAGGCACTAGGCCGGCTGCCACCCTGGAAGAGATGATGACCGCCTGTCAGG
GAGTAGGCGGACCCGGACACAAAGCCAGAGTGTGGCCGAAGCCATGCCAGGTGACGAAC
TCCGCAACCATCATGATGCAGAGAGGAACTCCGCAATCAGCGGAAGATCGTGAAGTGT

25

CAATTGCGGAAGGAGGGTCATACCGCCCGCAACTGTCGGGCCCTAGGAAGAAAGGGTGT
GGAAGTGCAGGCAAGGAGGGACACCAGATGAAAGACTGTACAGAACGACAGGCCAATTTCTT
GGAAAGATTGGCGAGCTACAAGGGGAGACCTGGTAATTCCCTGCAAAGCAGGCCAGCC
CACCGCCCCCCTGAGGAATCCTCAGGTCCGGAGTGGAGACCACAACGCCCTCCCCAAAAC
AGGAACCAATGACAAGGAGCTGTACCCCTTAACTTCTCTCGTTCTCTGGCAACGAC

30

CCGTCGTCTCAATAA

MGARASVLSG GELDRWEKIR LRPGGKKKYK LKHIVWASRE LERFAVNPL

LETSEGCRQI LGQLQPSLQT GSEELRSLYN TVATLYCVHQ RIEIKDTKEA

LDKIEEEQNK SKKKAQQAAA DTGHSNQVSQ NYPIVQNIQG QMVHQAISPR

35

TLNAWVKVVE EKAFSPEVIP MFSALSEGAT PQDLNTMLNT VGGHQAAMQM

LKETINEEAAA EWDRVHPVHA GPIAPGQMRE PRGSDIAGTT STLQEIQIGWM

TNNPPIPVGE IYKRWIILGL NKIVRMYSPT SILDIRQGPK EPFRDYVDRF

YKTLRAEQAS QEVKNWMTET LLVQNaNPDC KTILKALGPA ATLEEMMTAC

QGVGGPGHKA RVLAEAMSVQ TNSATIMMQR GNFRNQRKIV KCFNCGKEGH

40

TARNCRAPRK KGCWKCGKEG HQMKD

CTERQ ANFLGKIQWPS YKGRPGNFLQ

SRPEPTAPPE ESFRSGVETT TPPQKQEPIK KELYPLTSR SLFGNDPSSQ

*

5

Figure 19

Sequence of the p17/24trNEF insert in p17/24trNEF1

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AACGATTGCGAGTTAATCCTGGCCTGTTAGAAACATCAGAAGGCTGTAGACAAATACTGGGA
CAGCTACAAACCATCCCTTCAGACAGGATCAGAAGAACTTAGATCATTATATAATACAGTAGC
AACCTCTATTGTGTGCATCAAAGGATAGAGATAAAAGACACCAAGGAAGCTTAGACAAGA
15 TAGAGGAAGAGCAAACAAAAGTAAGAAAAAAAGCACAGCAAGCAGCAGCTGACACAGGACAC
AGCAATCAGGTCAGCCAAAATTACCCCTATAGTGCAGAACATCCAGGGCAAATGGTACATCA
GGCCATATCACCTAGAACTTAAATGCATGGTAAAAGTAGTAGAGAGAAGGCTTCAGCC
CAGAAGTGTACACCCATGTTTCAGCATTATCAGAAGGAGCCACCCACAAGATTAAACACC
ATGCTAAACACAGTGGGGGACATCAAGCAGCCATGCAAATGTTAAAAGAGACCATCAATGA
20 GGAAGCTGCAGAATGGGATAGAGTGCATCCAGTGCATGCAGGGCTATTGCACCAGGCCAGA
TGAGAGAACCAAGGGGAAGTGCACATAGCAGGAACACTACTAGTACCCCTCAGGAACAAATAGGA
TGGATGACAAATAATCCACCTATCCAGTAGGAGAAATTATAAAAGATGGATAATCCTGGG
ATTTAAATAAAATAGTAAGAATGTATAGCCCTACCAAGCATTCTGGACATAAGACAAGGACAA
AAGAACCTTGTAGAGACTATGTAGACCGGTTCTATAAAACTCTAAGAGCCGAGCAAGCTTCA
25 CAGGAGGTAAAAATTGGATGACAGAAACCTTGTGGTCCAAAATCGGAACCCAGATTGTAA
GACTATTTAAAAGCATTGGGACCAAGCGGCTACACTAGAAGAAATGATGACAGCATGTCAGG
GAGTAGGAGGACCCGCCATAAGGCAAGAGTTTGGTGGGTTTCAGTCACACCTCAGGTA
CCTTTAAGACCAATGACTTACAAGGCAGCTGTAGATCTTAGCCACTTTAAAAGAAAAGGG
GGGACTGGAAGGGCTAATTCACTCCAAAGAAGACAAGATATCCTGATCTGTGGATCTACC
30 ACACACAAGGCTACTTCCCTGATTGGCAGAACTACACACCAGGGCCAGGGGTAGATATCCA
CTGACCTTGGATGGTGTACAAGCTAGTACCAAGCTGTAGGAGCAGATAAGGTAGAAGAGGCCAA
TAAAGGAGAGAACACCAGCTGTTACACCTGTGAGCCTGCATGGATGGATGACCCGGAGA
GAGAAGTGTAGAGTGGAGGTTGACAGCCACCTAGCATTTCATCACGTGGCCGAGAGCTG
CATCCGGAGTACTTCAAGAACTGCTGA
35 MGARASVLSG GELDRWEKIR LRPGGKKKYK LKHIVWASRE LERFAVNPG
LETSEGRQI LGQLQPSLQT GSEELRSLYN TVATLYCVHQ RIEIKDTKEA
LDKIEEEQNK SKKKAQQAAA DTGHSNQVSQ NYPIVQNIQG QMVHQAIISPR
TLNAWVKVVE EKAFSPEVIP MFSALSEGAT PQDLNTMLNT VGGHQAAMQM
40 LKETINEEAA EWDRVHPVHA GPIAPGQMRE PRGSDIAGTT STLQEIQGWM

TNNPPIPVGE IYKRWIILGL

NK

IVRMYSPT SILDIRQGPK EPPFRDYVDRF

YKTLRAEQAS QEVKNWMTET LLVQANPDC KTILKALGPA ATLEEMMTAC

5 QGVGGPGHKA RVLVGFVTP QVPLRPMTYK AAVDLSHFLK EKGGLEGLIH
SQRRQDILDL WIYHTQGYFP DWQNYTPGPG VRYPLTFGWC YKLVPVEPDK
VEEANKGENT SLLHPVSLHG MDDPEREVLE WRFDSHLAFH HVARELHPEY
FKNC*

10

Figure 20**Sequence of the p17/24opt/trNef insert in p17/24opt/trNef1**

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 15 GCGCCCGGGAGGCAAAAAGAAATACAAGCTCAAGCATATCGTGTGGGCCTCGAGGGAGCTTG
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 CAATTGCAGCCATCCCTCCAGACCGGGAGTGAAGAGCTGAGGTCTTGATAACACAGTGGC
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 TTGAGGAGGAGCAAAACAAGAGCAAGAAGAAGGCCAGCAGGCAGCTGCTGACACTGGCAT
 20 AGCAACCAGGTATCACAGAACTATCCTATTGTCCAAAACATTAGGCCAGATGGTTCATCA
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 CTGAGGTTATCCCCATGTTCTCGCTTGAGTGAAGGGGCCACTCCTCAGGACCTCAATACA
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 GGAGGCAGCCGAGTGGGACAGAGTGCATCCGTCCACGCTGGCCAATCGGCCGGACAGA
 25 TGGGGAGCCTCGCGCTCTGACATTGCCGGCACACCTTACACTGCAAGAGCAAATCGGA
 TGGATGACCAACAATCCTCCCATCCCAGTTGGAGAAATCTATAAACGGTGGATCATTCTCGG
 TCTCAATAAAATTGTTAGAATGTAATCTCCGACATCCATCCTTGACATTAGACAGGGACCCA
 AAGAGCCTTTAGGGATTACGTCGACGGGTTTATAAGACCTGCGAGCAGAGCAGGCCCT
 CAGGAGGTCAAAACTGGATGACGGAGACACTCCTGGTACAGAACGCTAACCCGACTGCAA
 30 AACAAATCTGAAGGCACTAGGCCGGCTGCCACCCCTGGAAGAGATGATGCCCTGTCAGG
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 ACCACACACAAGGCTACTCCCTGATTGGCAGAACTACACACCAGGGCAGGGGTAGATAT
 35 CCACTGACCTTGGATGGTGCTACAAGCTAGTACCGAGTGTGAGCCAGATAAGGTAGAAGAGGC
 CAATAAAGGAGAGAACACCAGCTTACACCCCTGTGAGCCTGCATGGGATGGATGACCCGG
 AGAGAGAAGTGTAGAGTGGAGGTTGACAGCCACCTAGCATTCACTCACGTGGCCCGAGAG
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40 MGARASVLSG GELDRWEKIR LRPGKKKYK LKHIVWASRE LERFAVNPL

LETSEGCRQI LGQLQPSLQT GSEELRSLYN TVATLYCVHQ RIEIKDTKEA
 LDKIEEEQNK SKKKAQ
 QAAA DTG
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 5 TLNAWVKVVE EKAFSPEVIP MFSALSEGAT PQDLNTMLNT VGGHQAAQM
 LKETINEEAA EWDRVHPVHA GPIAPGQMRE PRGSDIAGTT STLQEIGWM
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 YKTLRAEQAS QEVKNWMTET LLVQANPDC KTILKALGPA ATLEEMMTAC
 QGVGGPGHKA RVLMVGFVPT PQVPLRPMTY KAAVDSLHFL KEKGGLEGLI
 10 HSQRQDILD LWIYHTQGYF PDWQNYTPGP GVRYPLTFGW CYKLVPVEPD
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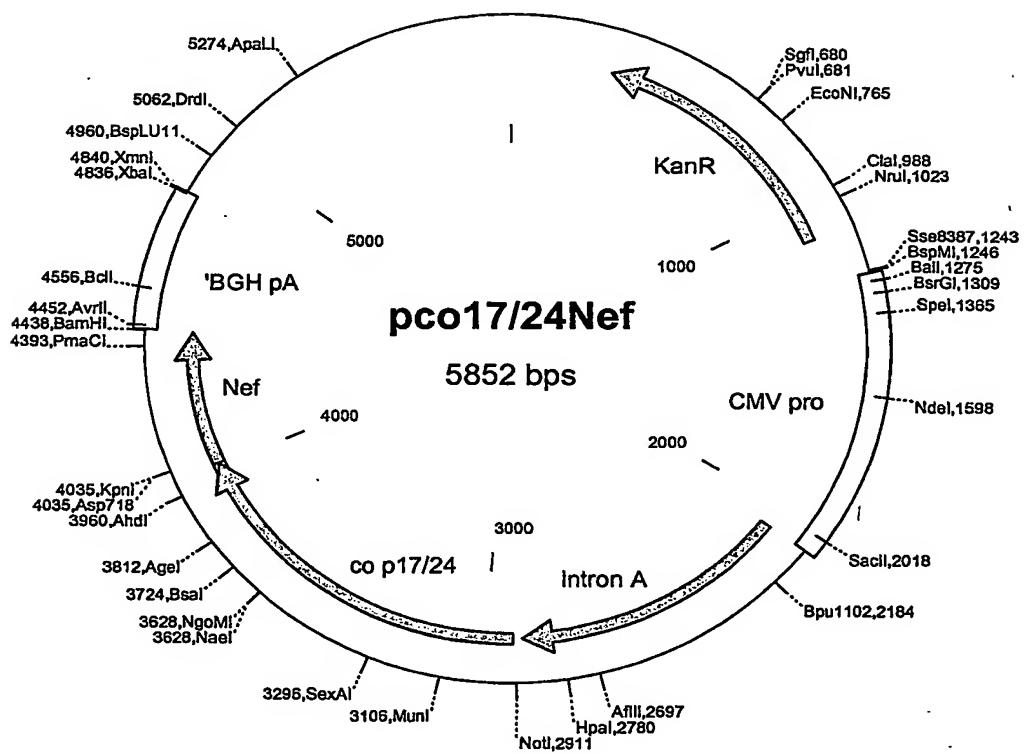


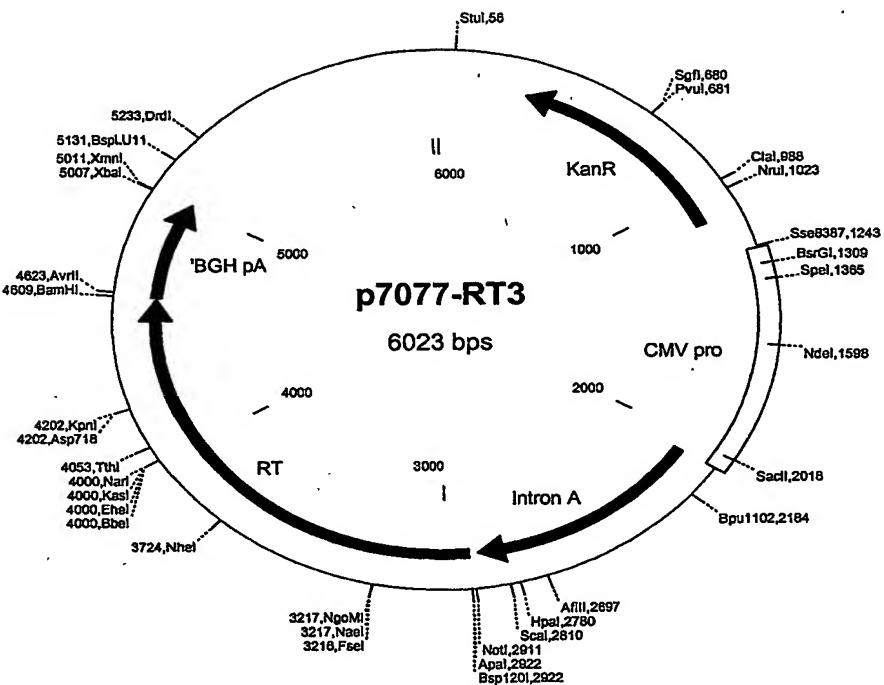
Figure 21

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 TAAGCGGACCCAGGATTCTGGGAGGTCCAGCTGGCATTCCCCATCCGGCCGGCTGAAGA
 AGAAGAAGAGCGTGACCGTGCTGGACGTGGCGACGCTTACCTCAGCGTCCCTGGACGAG
 GACTTAGAAAGTACACCGCCTTACCATCCATCTATCAACAACGAGACCCCTGGCATCAG
 10 ATATCAGTACAACGTCCTCCCCCAGGGCTGGAAGGGCTCTCCGCCATTTCAGAGCTCCA
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 GACGACCTGTACGTGGCTCTGACCTGGAAATCGGCAGCATCGCACGAAGATTGAGGAGCT
 GAGGCAGCAGTGTGAGATGGGCCT
 GACCAC
 15 TCCGGACAAGAACATCAGAAGGAGGCCATTCTGTGGATGGCTACGAGCTCCATCCG
 ACAAGTGGACCGTGCGCCCTATCGTCCTCCCCGAGAACGGACAGCTGGACCGTGAAAC
 GACATCCAGAACAGCTGGTGGCAAGCTCAACTGGCTAGCCAGATCTATCCGGGATCAAGG
 GCGCCAGCTCTGCAAGCTGCTGCGCCACCAAGGCCCTGACCGAGGTGATTCCCTCACGG
 AGGAAGCCGAGCTCGAGCTGGCTGAGAACCCGGAGATCCTGAAGGAGCCGTGCACGGCGT
 20 TACTATGACCCCTCCAAGGACCTGATGCCGAAATCCAGAACAGCAGGCCAGGGCAGTGGAC
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 GCGCCACACCAACGATGTCAAGCAGCTGACCGAGGCCGTCAGAACAGATCACGACCGAGTCC
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 25 CTCTGGTGAAGCTGGTACCGCTCGAGAACGGAGCCATCGTGGCGCGAGACATTCTAC
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 GGCATTATTCAAGGCCAGCCGGACCAGTCCGAGAGCGAACCTGGTGAACCAGATTATCGAGCA
 30 GCTGATCAAGAAAGAGAACGGTCTACCTCGCCTGGTCCCGCCATAAGGGCATTGGCGGCA
 ACGAGCAGGTCGACAAGCTGGTGAGTGCAGGGATTAGAAAGGTGCTGTAA

MGPISPIETV SVKLKPGMDG PKVKQWPLTE EKIKALVEIC TEMEKEGKIS
 KIGPENPYNT PVFAIKKKDS TKWRKLVDFR ELNKRTQDFW EVQLGIPHPA
 35 GLKKKKSVTV LDVGDAYFSV PLDEDFRKYT AFTIPSINNE TPGIRYQYNV
 LPQGWKGSPA IFQSSMTKIL EPFRKQNPDI VIYQYMDLY VGSDELIGQH
 RTKIEELRQH LLRWGLTPD KKHKKEPPFL WMGYELHPDK WTVQPIVLPE
 KDSWTVNDIQ KLVGKLNWAS QIYPGIKVRQ LCKLLRGTKA LTEVIPLTEE
 AELELAENRE ILKEPVHGKY YDPSKDLIAE IOKQGQGQWT YQIYQEPFKN
 40 LKTGKYARMR GAHTNDVKQL TEAVQKITTE SIVIWGKTPK FKLPIQKETW
 ETWWTEYWQA TWIPEWEFVN TPPLVKLWYQ LEKEPIVGAE TFYVDGAANR

ETKLGKAGYV TNRGRQKVVT LTDTTNQKTE LQAIYLALQD SGLEVNVITD
 SQYALGIIQA QPDQSESELV NQIIIEQLIKK EKVYLAWVPA HKGIGGNEQV
 DKLVSAGIRK VL*



5

Figure 22

Sequence of the coding insert in p73i-RT3:

ATGGGCCCATCAGTCCCATCGAGACCGTGCCGGTGAAGCTGAAACCCGGGATGGACGGCCC
 10 CAAGGTCAAGCAGTGCCACTCACCGAGGAGAAGATCAAGGCCCTGGTGGAGATCTGCACCG
 AGATGGAGAAAGAGGGCAAGATCAGCAAGATCGGGCTGAGAACCCATAAACACCCCCGTG
 TTTGCCATCAAGAAGAAGGACAGCACCAAGTGGCGCAAGCTGGTGGATTCCGGGAGCTGAA
 TAAGCGGACCCAGGATTCTGGGAGGTCCAGCTGGCATCCCCATCCGGCCGGCCTGAAGA
 AGAAGAAGAGCGTGACCGTGCTGGACGTGGCGACGCTTACTTCAGCGTCCCTCTGGACGAG
 15 GACTTTAGAAAGTACACCGCCTTACCATCCCATCTATCAACAACGAGACCCCTGGCATCAG
 ATATCAGTACAACGTCCCTCCCCCAGGGCTGGAAGGGCTCTCCGCCATTTCAGAGCTCCA
 TGACCAAGATCCTGGAGCCGTTCGGAAGCAGAACCCGATATCGTCATCTACCAAGTACATG

GACCGACCTGTACGTGGCTCTGACCTGGAAATCGGGCAGCAGTCGACGAAGATTGAGGAGCT
GAGGCAGCATCTGCTGAGATGGGCCTGACCACTCCGGACAAGAAGCATCAGAAGGAGCCGC
CATTCCTGTGGATGGCTACGAGCTCCATCCCGACAAGTGGACCGTGCAGCCTATCGTCCTC
CCCAGAGAAGGACAGCTGGACCGTGAACGACATCCAGAAGCTGGTGGCAAGCTCAACTGGC
5 TAGCCAGATCTATCCGGATCAAGGTGCCAGCTCTGCAAGCTGCTGCCGGCACCAAGG
CCCTGACCGAGGTGATTCCCTCACGGAGGAAGCCGAGCTCGAGCTGGCTGAGAACCGGGAG
ATCCTGAAGGAGCCCGTGCACG
GCGTGTACTATGACCCCTCCAAGGACCTGATGCCGAAATCCAGAAGCAGGGCAGGGCAG
TGGACATACCAGATTACCAAGGAGCCTTCAAGAACCTCAAGACCGCAAGTACGCCCGCAT
10 GAGGGGCGCCCACACCAACCGATGTCAAGCAGCTGACCGAGGCCGTCCAGAAGATCACGACCG
AGTCCATCGTGATCTGGGGAAGACACCCAGTTCAAGCTGCCTATCCAGAAGGAGACCTGG
GAGACGTGGTGGACCGAATATTGGCAGGCCACCTGGATTCCCGAGTGGAGTCGTGAATAC
ACCTCCTCTGGTGAAGCTGTGGTACCAAGCTCGAGAAGGACCCATCGTGGCGCGGAGACAT
TCTACGTGGACGGCGGCCAACCGCAAACAAAGCTGGAA
15 GGCCGGGTACGTCACCAACCGGGGCCAGAAGTCGTACCCCTGACCGACACCACCAACC
AGAAGACGGAGCTGCAGGCCATCTATCTCGCTCTCCAGGACTCCGGCTGGAGGTGAACATC
GTGACGGACAGCCAGTACCGCTGGCATTATTCAAGGCCAGCCGACCGAGTCGAGAGCGA
ACTGGTGAACCAGATTATCGAGCAGCTGATCAAGAAAGAGAAGGTCTACCTCGCCTGGTCC
CGGCCATAAGGGATTGGCGCAACGAGCAGGTCGACAAGCTGGTGAAGTGCAGGGATTAGA
20 AAGGTGCTGTAA

MGPISPIETV SVKLKPGMDG PKVKQWPLTE EKIKALVEIC TEMEKEGKIS
KIGPENPYNT PVFAIKKKDS TKWRKLVDFR ELNKRTQDFW EVQLGIPHPA
GLKKKKSVTV LDVGDAYFSV PLDEDFRKYT AFTIPSINNE TPGIRYQYNV
25 LPQGWKGSPA IFQSSMTKIL EPFRKQNPDI VIYQYMDDLY VGSdleIGQH
RTKIEELRQH LLRWGLTPD KKHQKEPPFL WMGYELHPDK WTVQPIVLPE
KDSWTVNDIQ KLVGKLNWAS QIYPGIKVRQ LCKLLRGTKA LTEVIPLTEE
AELELAENRE ILKEPVHGKVY YDPSKDLIAE IOKQGQGQWT YQIYQEPFKN
LKTGKYARMR GAHTNDVKQL TEAVQKITTE SIVIWGKTPK FKLPIQKETW
30 ETWWTEYWQA TWIPEWEFVN TPPLVKLWYQ LEKEPIVGAE TFYVDGAANR
ETKLGKAGYV TNRGRQKVVT LTDTTNQKTE LQAIYLALQD SGLEVNIYTD
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DKLVSAGIRK VL*

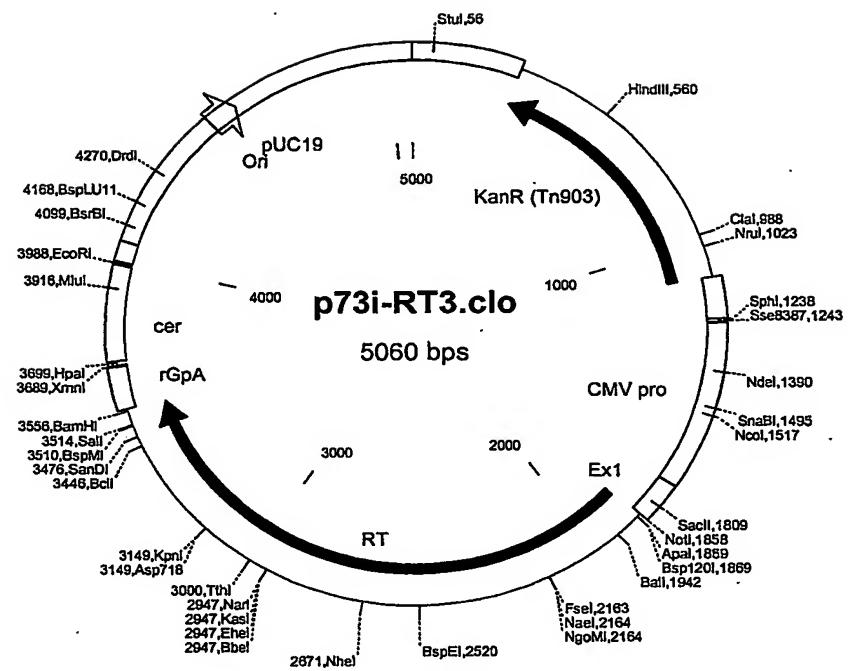


Figure 23

CD8, Interferon Gamma ELISPOT Results, from Day 14 C57BL/6 Mice Vaccinated with Plasmid DNA Encoded with the HPV16 E7 Oncogene.

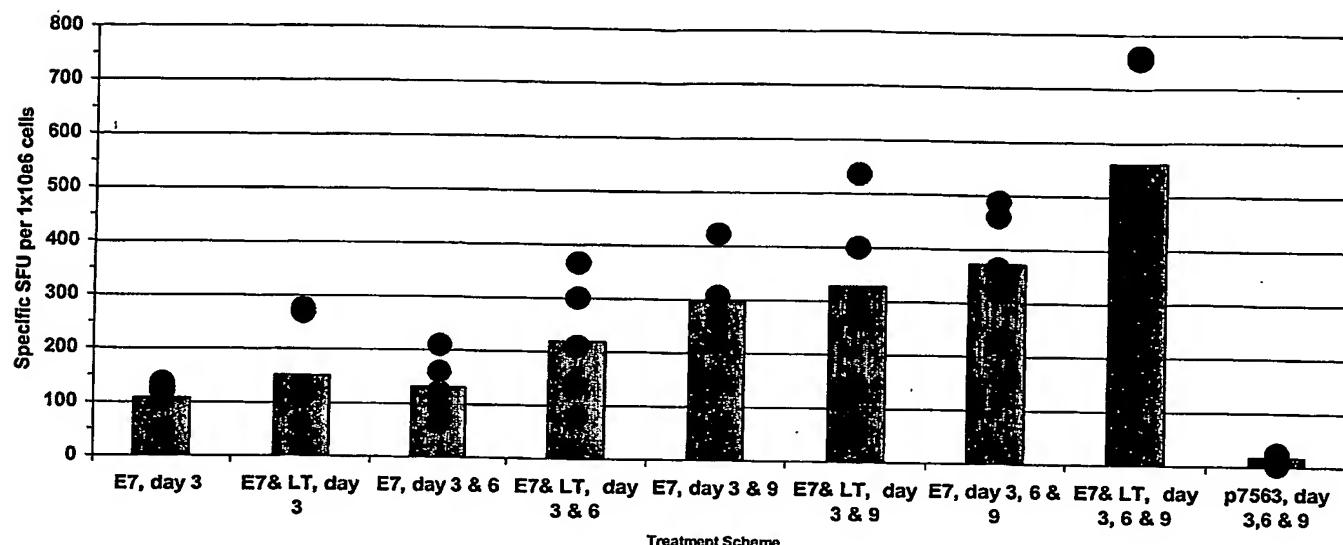
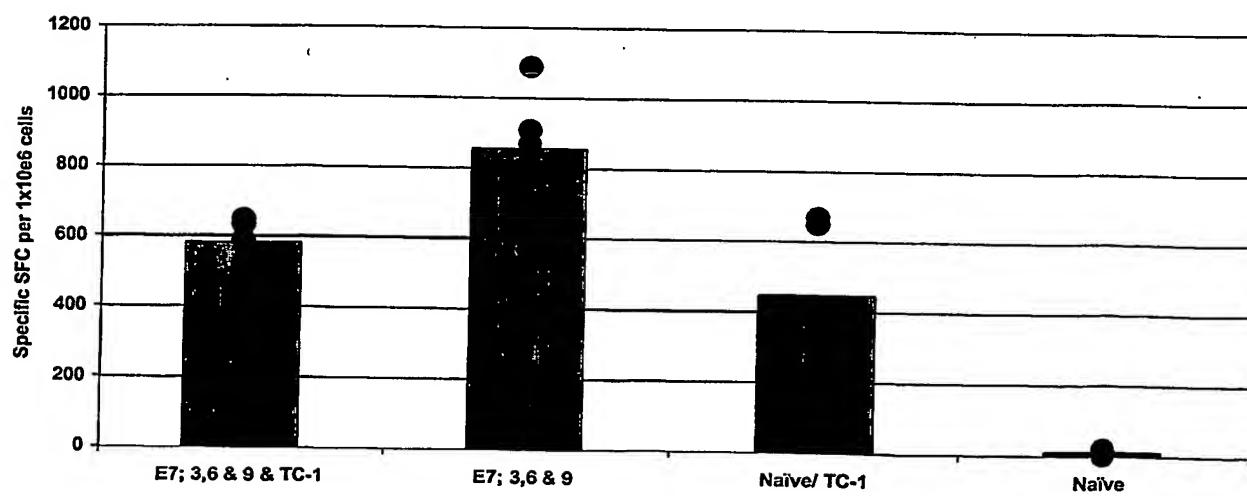


Figure 24

**CD4 Peptide, IFNg ELISPOT
E7 DNA Vaccine with and without TC-1 Cells(TC-1#7)**



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Figure 25

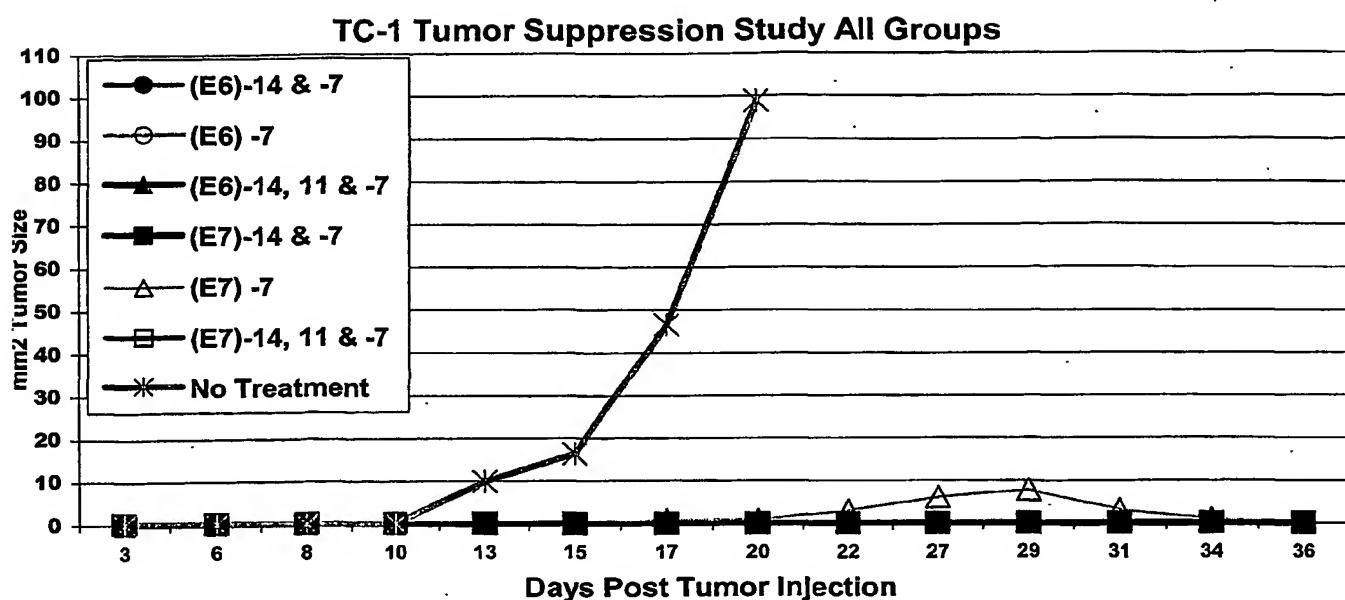
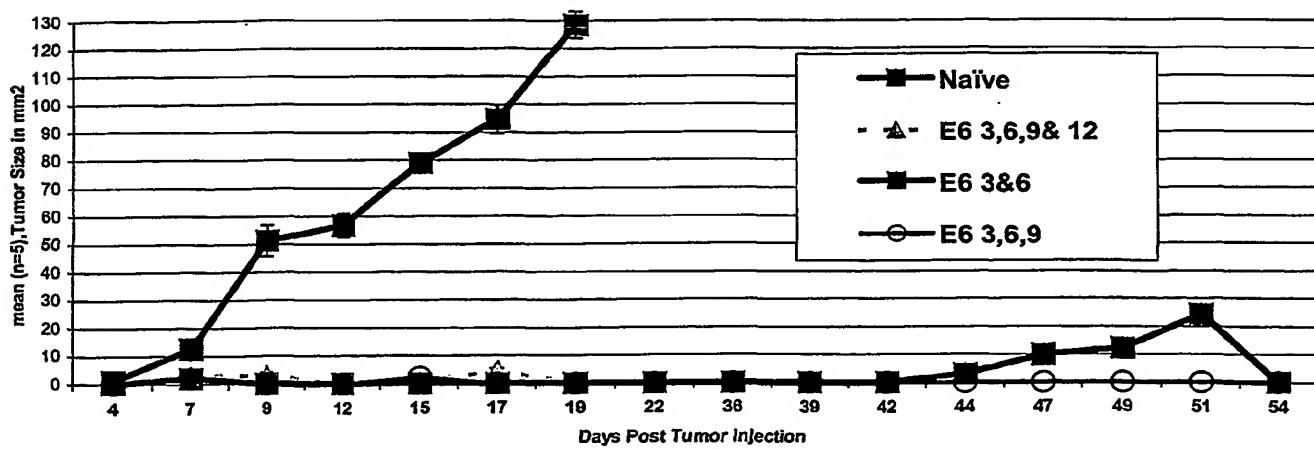


Figure 26

Tumor Measurements In C57BL/6 Mice Injected with HPV16 Tumor Cells and Vaccinated with an HPV16 E6 DNA Plasmid



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Figure 27

Tumor Measurements in C57Bl/6 Mice, TC-1 cell Re-Challenge Experiment, (TC-1#9)

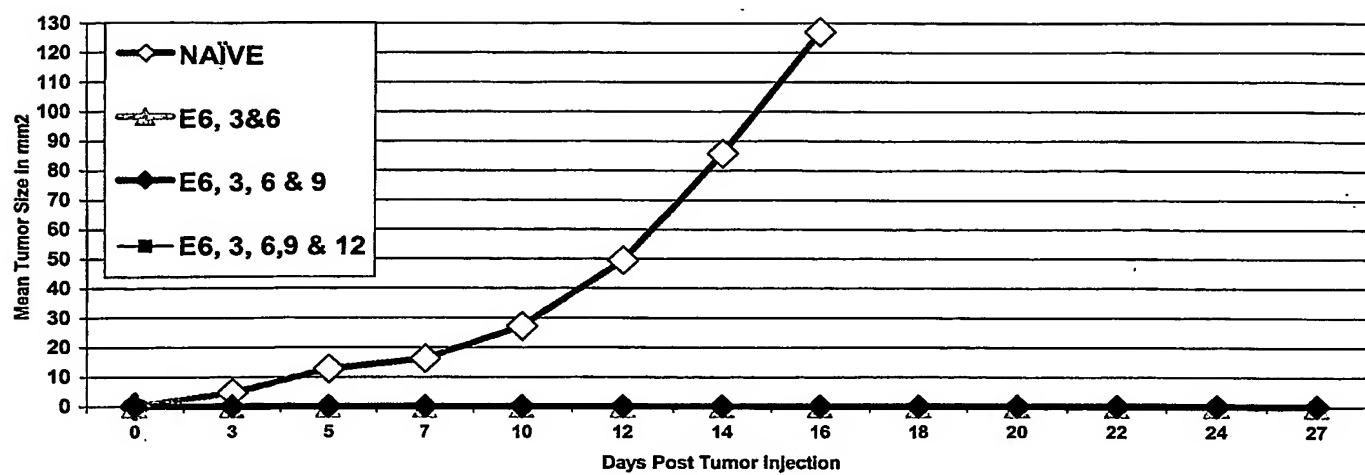


Figure 28

**TC-1 Tumor Suppression Study
(5x10⁴) TC-1 Cell Groups (TC-1#14)**

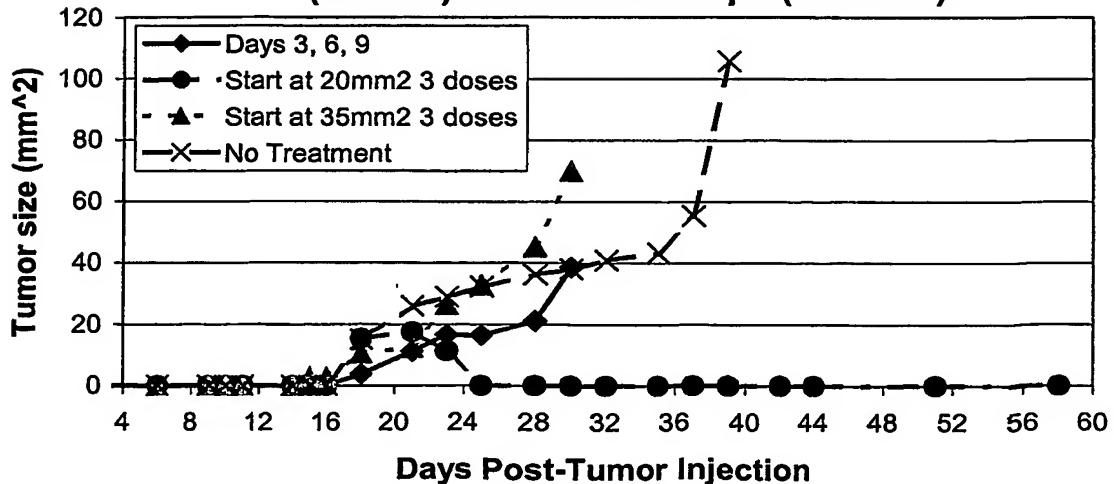


Figure 29

ICP27

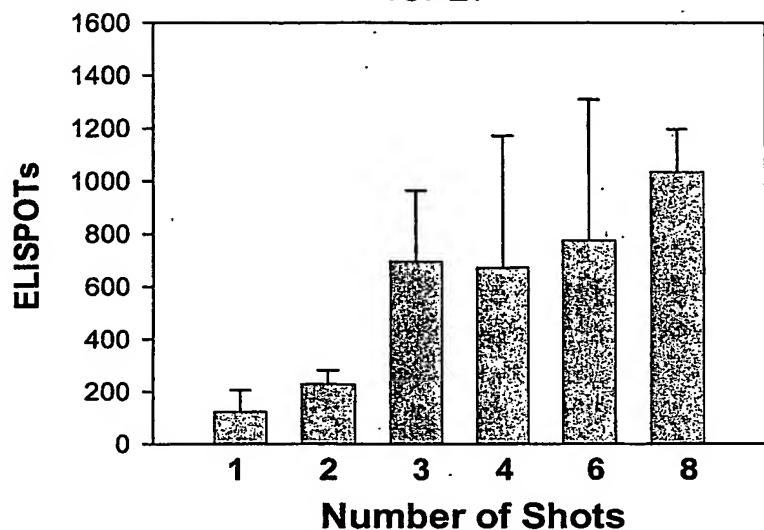
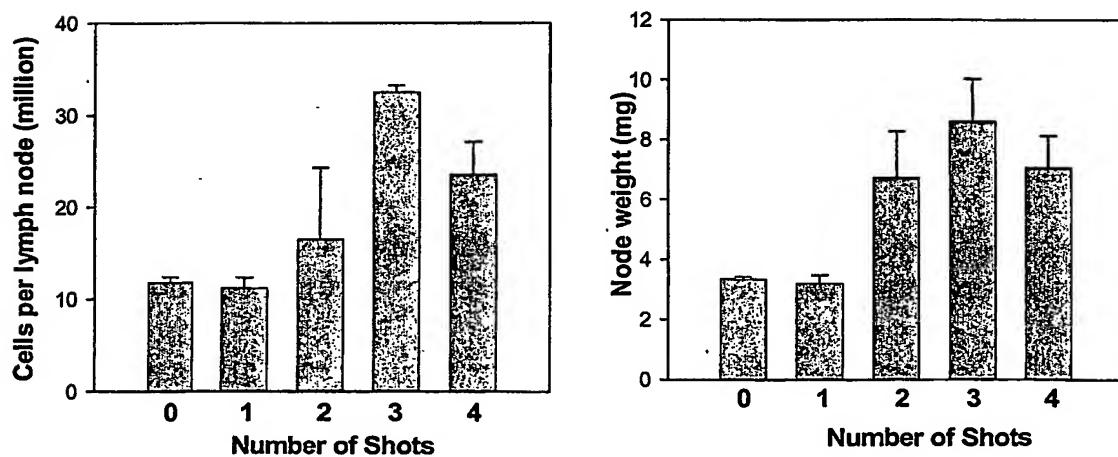


Figure 30



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Figure 31

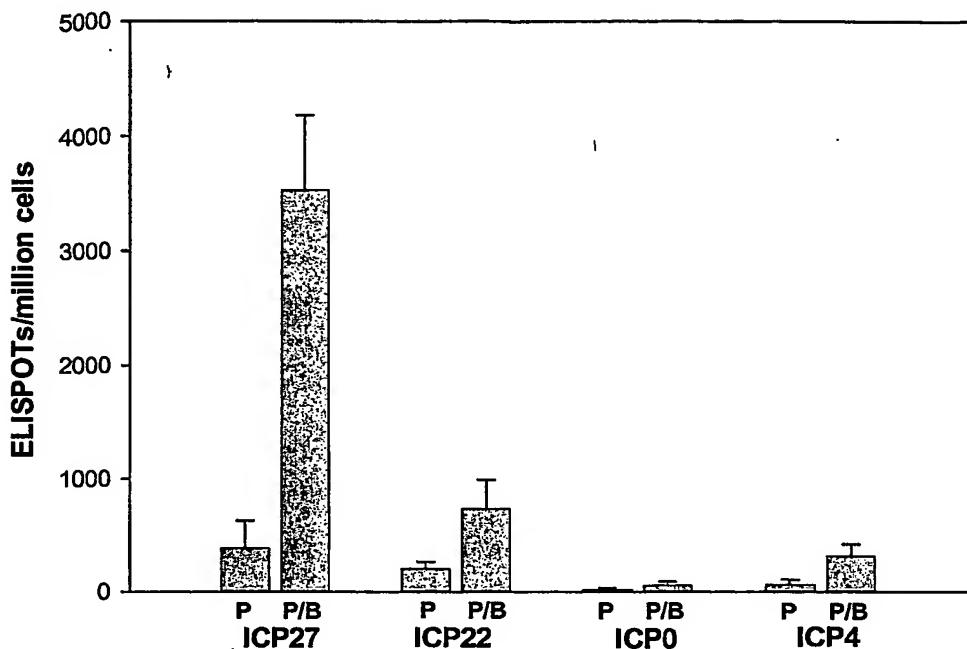
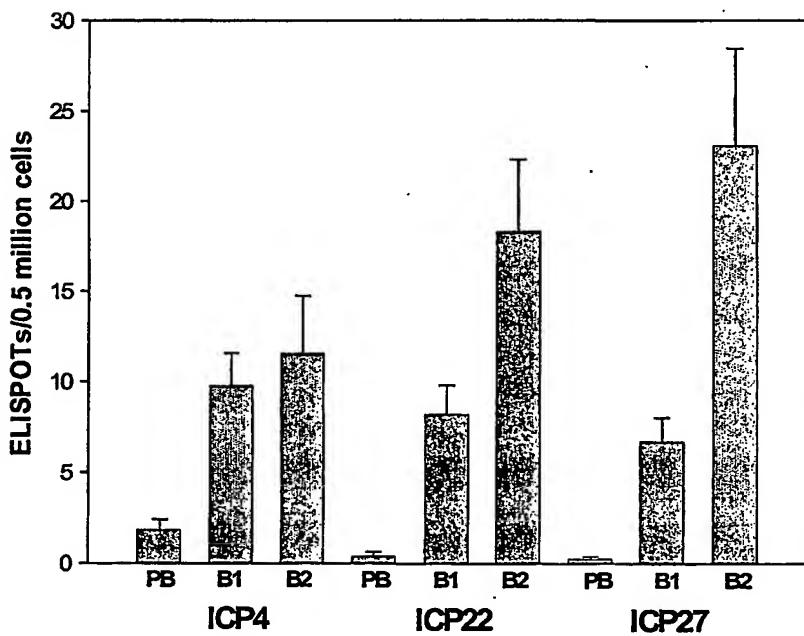


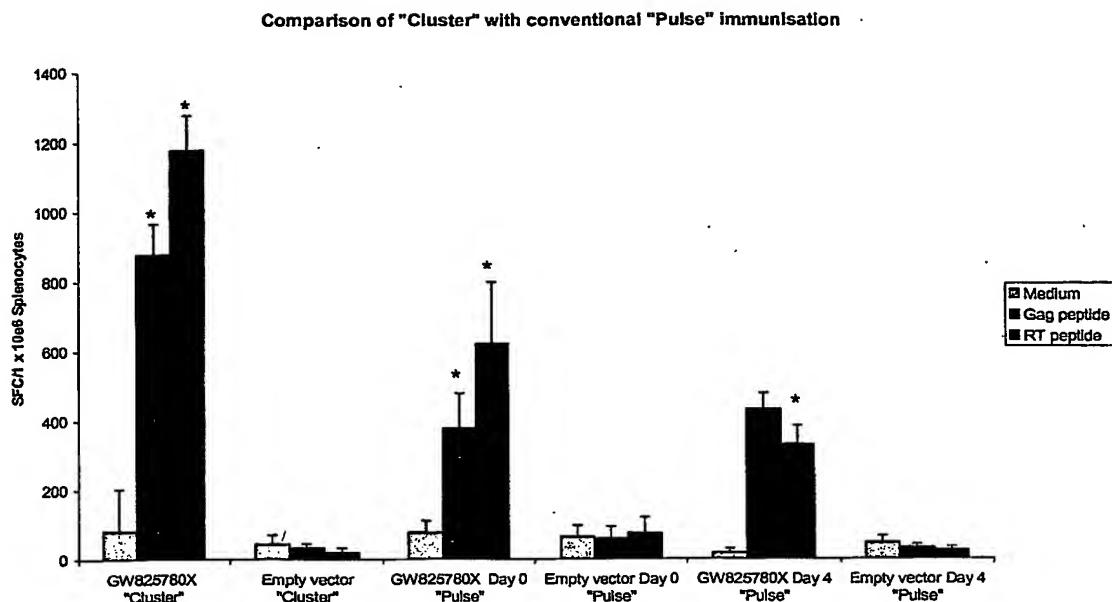
Figure 32

Immune responses in domestic pigs following cluster dosings



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Figure 33



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Figure 34

Comparison of conventional "pulse" with "modified cluster" immunisation

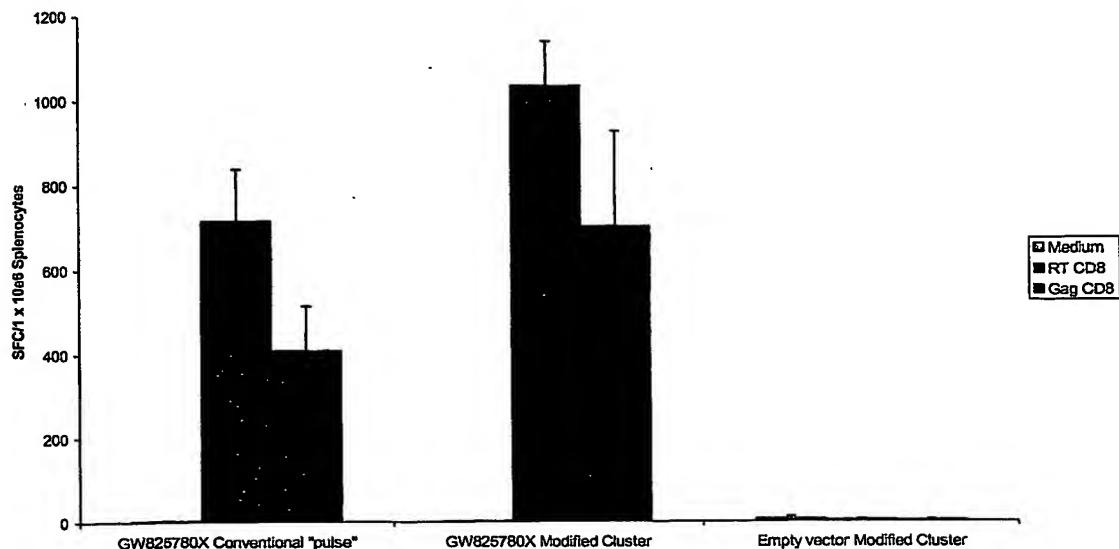
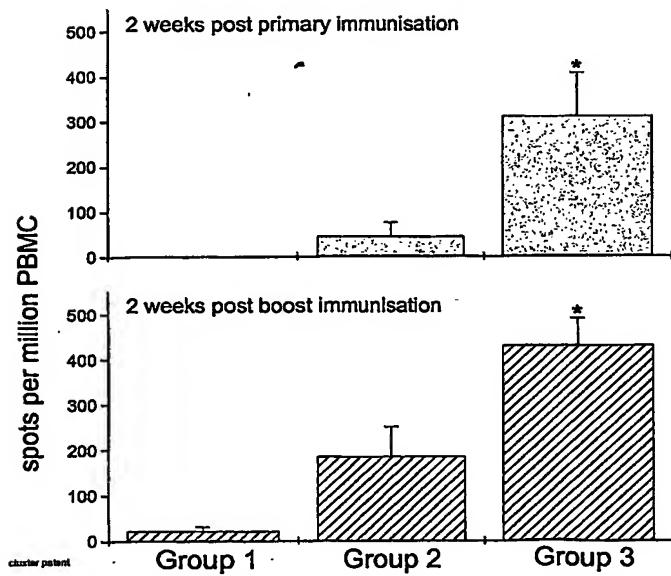


Figure 35



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Figure 36

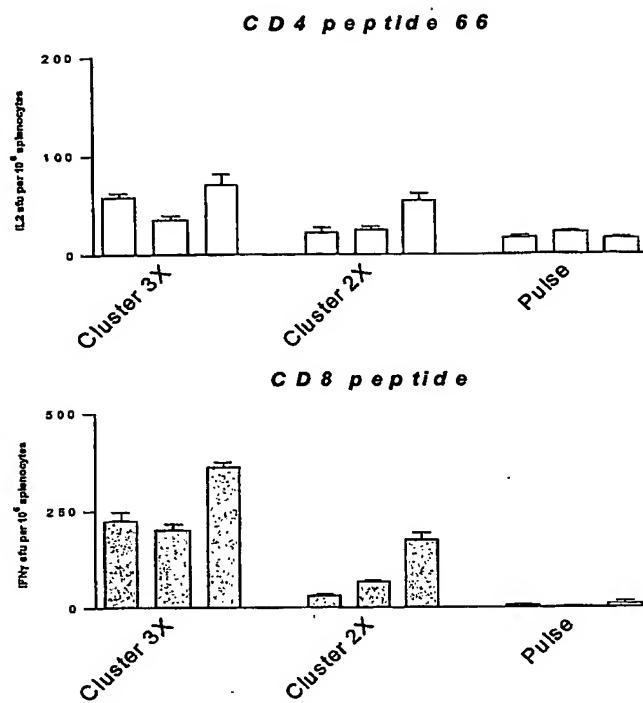


Figure 37

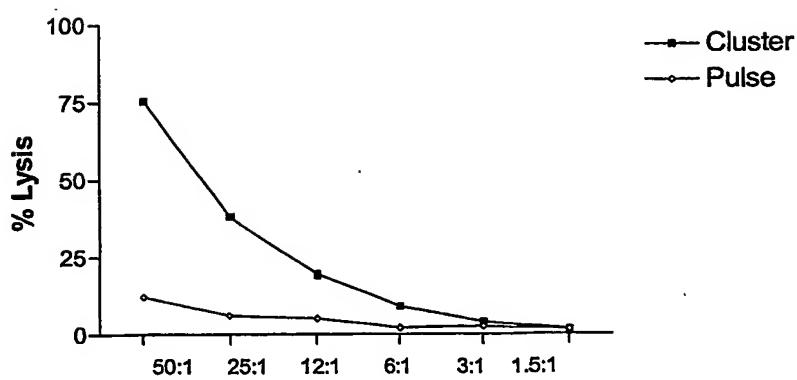


Figure 38

Cluster02